The OIL WEEKLY

10¢ A COPY

Exclusively Devoted To The Production and Transportation of Oil and Gas

June 15, 1928 **Volume 49. No. 13**

12028

Milestones of Progress

DRAKE made his great venture in stage coach days. Naturally, the first oil derrick was made of wood, for it was the age when wood was king.

The International Derrick and Equipment Company chose the steel age—the age of motor buses and flying machines—to introduce its first galvanized structural steel derrick. The innovation met with widespread approval because IDECO derricks are designed on the same sound principles which govern the construction of modern skyscrapers and bridges.

Today the company is the largest manufacturer of steel derricks (galvanized) in the world. Your first experience with our products will convince you that our growth is based entirely on merit. Investigate for yourself—get in touch with the nearest branch.

INTERNATIONAL STEEL IDECO DERRICKS
(GALVANIZED)

The International Derrick & Equipment Co.

Dallas, Houston, Mexia, Wichita Falls, Odessa, Pyote, Amarillo, Borger, Corsicana, Pampa, Panhandle, Shreveport, Oil City, Smackover, Allen, Sasakwa

The largest company devoted exclusively to the manufacture of steel (galvanized) equipment for the oil, gas and artesian industries.

Columbus, Ohio Torrance, Cal.

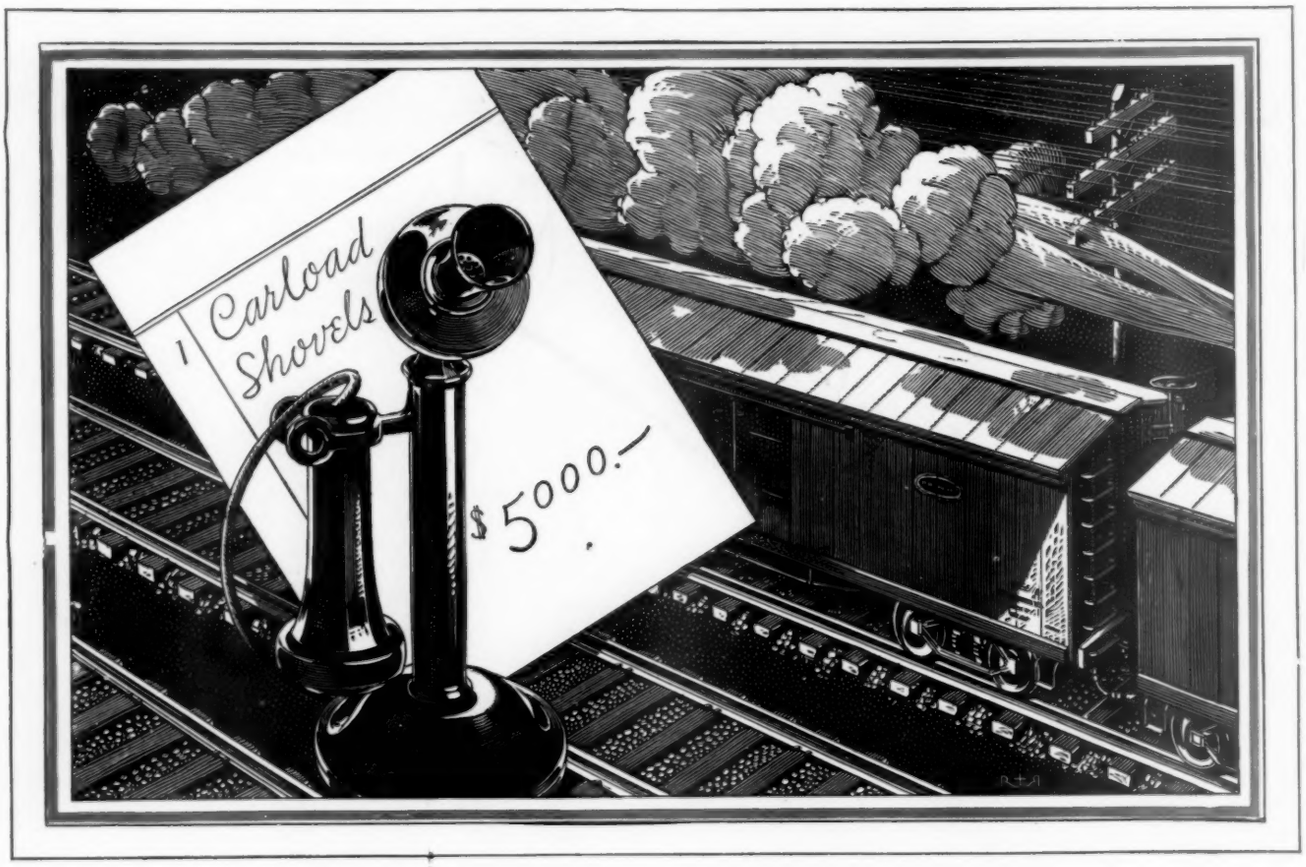
California Representative
National Supply Co. of California

El Dorado, Tulsa, Tonkawa, Drumright, Okemah, Seminole, Wewoka, Denver, Casper, Torrance, Los Angeles, Taft, Detroit, Charleston

Export Representation: 74 Trinity Place, New York City, Columbus, Ohio, Los Angeles and San Francisco, Calif.

No. 500

Called on him for 3 years
Then, a $5000 order by Telephone



An Advertisement for Bell Long Distance Telephone Service

THE sales manager of a West Virginia tool company made personal calls upon a Cincinnati jobber for three years—without making a sale. Then one day he learned that a large job of work was to be started. He instantly called the jobber by Long Distance. Sold him a carload of shovels. Amount of the order, $5000. Telephone charge, $1.30.

In the packing industry, reams of correspondence are often exchanged before specifications can be agreed upon. In a 10-minute telephone conversation, an Austin, Minnesota, firm took a 5-carload order and laid the groundwork for future shipments of 500,000 pounds. The new customer was 1500 miles away.

A Cedar Rapids insurance man had learned to use Long Distance while in the coal business. Each week from his desk he calls an average of 20 of his salesmen. "It enables me to talk to them just as well as if I visited them in person." In five years, his annual business has increased from one million to five and a half million dollars.

What long distance calls could you profitably make now? They are inexpensive. New station to station day rates are: San Francisco to New York, $9. Pittsburgh to Boston, $2.20. Chicago to Detroit, $1.35. Newark to Philadelphia, 60c. . . . . Calling by number takes less time. . . . . *Number, please?*

The OIL WEEKLY. Issued weekly by the Gulf Publishing Co., 3301 Buffalo Drive, Houston, Texas. Subscription price $1.00 per year; 10 cents per copy. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879.

Emergency Service

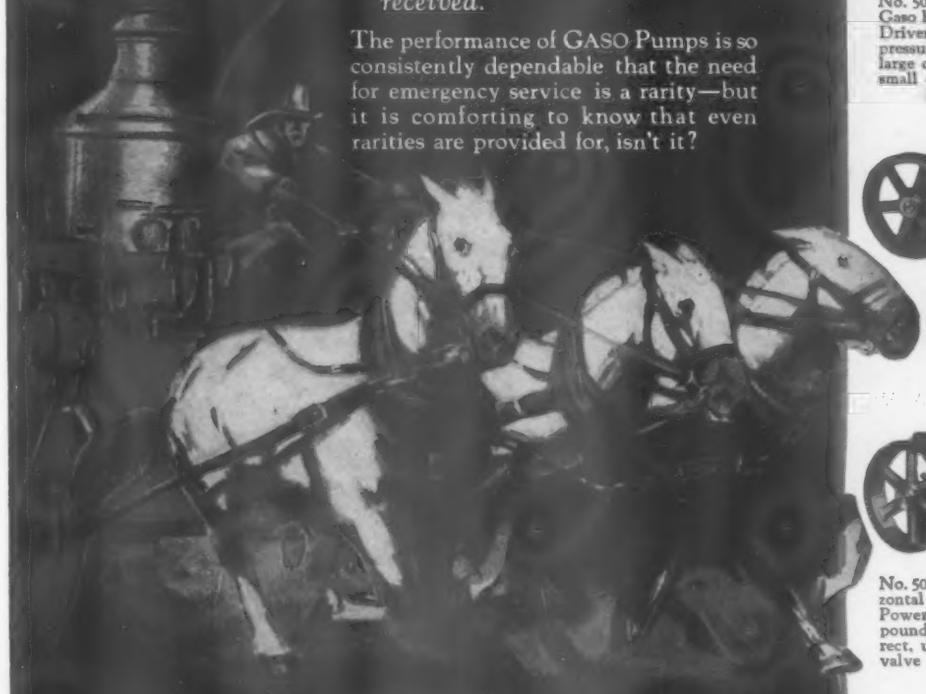
In seeking to guard your company against the possibility of serious breakdowns in pumping service, here are three things to keep in mind—

GASO Pumps have *fewer* and *stronger* parts.

The GASO plant is in *Tulsa*.

As a rule, GASO parts are shipped *on the day orders are received*.

The performance of GASO Pumps is so consistently dependable that the need for emergency service is a rarity—but it is comforting to know that even rarities are provided for, isn't it?

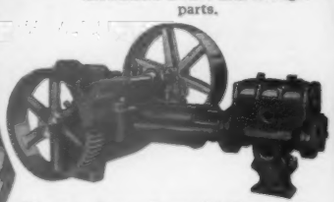


GEAR-DRIVEN PUMPS

Geared to Long Life and Real Service

No. 508—*Interchangeable liner* type of Gaso Horizontal Duplex Piston Gear-Driven Power Pump [200 to 800 pound pressures.] Quickly changeable from large capacity low-pressure service to small capacity high-pressure service. *Fewer* and *stronger* parts.

No. 507 — Gaso Horizontal Duplex Piston Gear-Driven Power Pump, especially suited to *suction* service. Ideal for large capacity low-pressure work. Valves and parts easily accessible. *Fewer* and *stronger* parts.



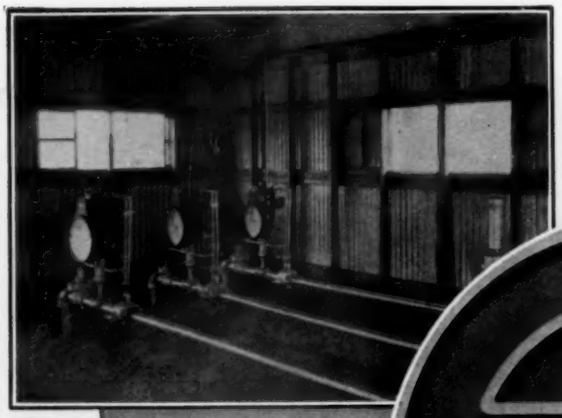
No. 501—A popular model Gaso Horizontal Duplex Piston Gear-Driven Power Pump, designed for 200 to 800 pound working pressures. Large, direct, unobstructed fluid passages and valve areas; simple design; *fewer* and *stronger* parts.

GASO PUMP & BURNER MFG. CO.

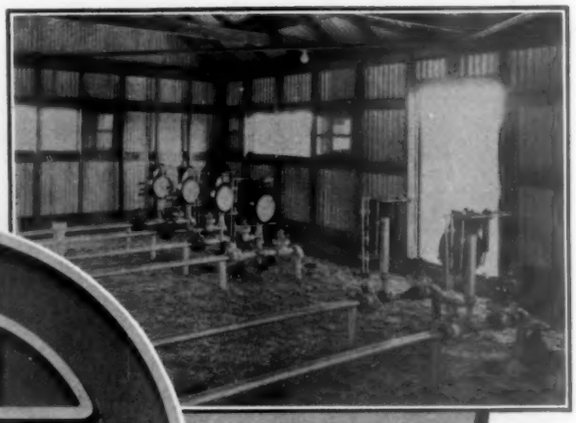
Tulsa · Oklahoma

GASO PUMPS

for every oil industry need



Metric Orifice Meter Installation at Bowlegs, Okla.



Experience Leads to Recognition

METERS METRIC

"Our selection of this type of meter for our air and gas lift stations was due to our past experience in measuring gas under all ranges of pressure and vacuum. We have found them to be accurate and a very substantial instrument; therefore, they have been entirely satisfactory."

WESTCOTT & GREIS, INC.
Sales Service
Dallas — Tulsa — Los Angeles

METRIC METAL WORKS
of the American Meter Company, Inc.
ERIE - PENNSYLVANIA - U-S-A

METRIC orifice METERS

PUT SURE IN MEASUREMENT

Say you saw it in The OIL WEEKLY

Two characteristics of cement have recently occupied the attention of engineers—

(1) **The surprising effect on ultimate strength of the amount of water used;**

(2) **The equally surprising difference in strength between the intimately mixed and the loosely mixed batch.**

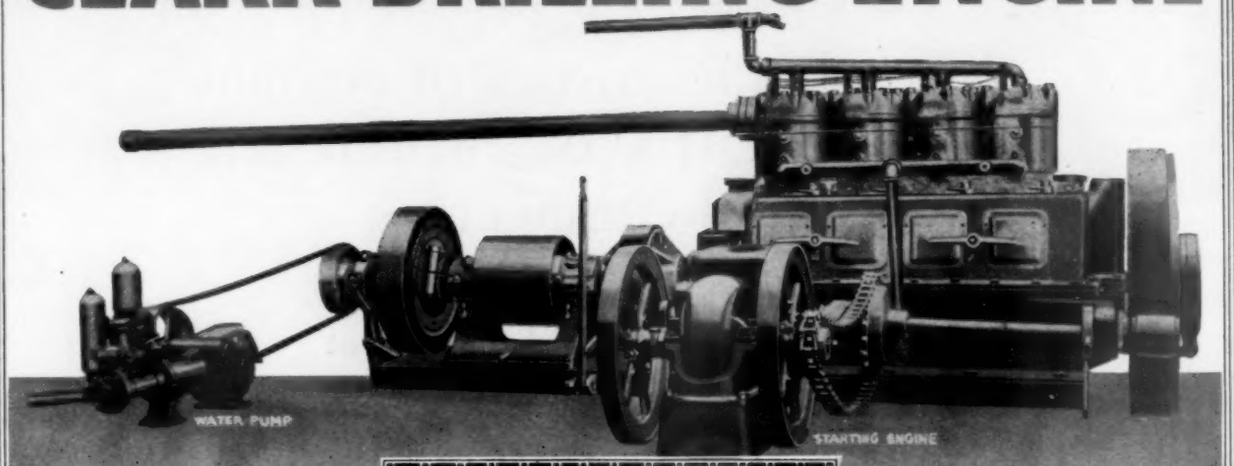
Experience has taught Halliburton the proper consistency of cement grout for oil well use. The exclusive Halliburton mixer is assurance of thorough mixing. The result is both a *properly* cemented well and a *strongly* cemented well.

HALLIBURTON

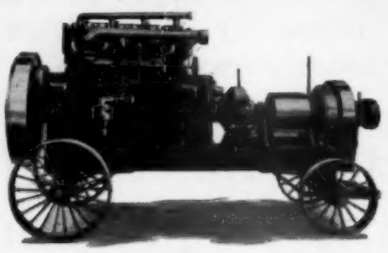
OIL WELL CEMENTING COMPANY

DUNCAN, OKLAHOMA

CLARK DRILLING ENGINE



SAVES FUEL



SAVES TIME

Important economies, both in fuel and drilling time, are effected by the CLARK Drilling Engine. Using only 7000 feet of gas or 75 gallons of gasoline daily, the cost for fuel is so low that yearly savings run into real money. Since the CLARK is always ready to deliver maximum power continuously at full speed, there is no waiting for power, and enough drilling time is saved to mean an additional 25 feet of hole daily.

Another CLARK advantage is that oftentimes it will operate on the small amount of gas available, whereas other engines would necessitate hauling more expensive fuel.

The CLARK Drilling Engine develops 35 to 120 brake H.P. at 85 to 500 R.P.M. It gives an efficient slow drilling motion and furnishes ample power for all drilling operations on the largest and deepest holes. Other features are: full derrick floor-control; no water used except for cooling; rugged construction; automatic lubrication; easy portability on its own truck.

Clark Bros. Co. OLEAN, N. Y.

Get the *facts* about CLARK Drilling Engine economy and efficiency as proved in wide use in many fields. Clark Bros. Company, Olean, N. Y. Branch and Warehouse: 125 W. First St., Tulsa. Warehouses at McCamey and Sweetwater, Texas, and Artesia, N. M. Smith Booth Usher Company, 228 S. Central Ave., Los Angeles; 50 Fremont St., San Francisco.

CLARK

Say you saw it in The OIL WEEKLY

A Letter from Harry G. Nye

Nye Self-Locking Vise

No.	Pipe	Vise, Complete Net
00	⅛ to 2 "	$2.82
10	⅛ to 2½"	3.34
20	¼ to 3½"	5.00
30	¼ to 4½"	7.33

Nye Drop Forged Pipe Cutter

No. 1-A	⅛ to 1¼"	$2.25 net
No. 2-A	¼ to 2"	3.00 net
No. 3-A	1 to 3"	5.00 net

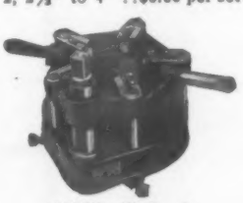
Nye Saunders Pipe Cutter

No. 1	$1.80 net
No. 2	2.70 net
No. 3	6.60 net
No. 4	10.80 net
No. 5	16.80 net

NYE (Toledo Type) Chasers Fit Nos. 1, 1A and 2 NYE (Toledo Type) Stocks

Each set is guaranteed in every particular. Will cut much easier than other similar dies.

No. 1, 1" to 1¼"	$ .75 per-set net
No. 1, 2"	$1.25 per set net
No. 2, 2½" to 4"	$3.60 per set net



NYE NO. 2
(Toledo Type)
Geared Threading Device Improved

Capacity 2½ in. to 4 in. inclusive. This tool has the same rugged construction as the No. 1 and No. 1A Nye Receding stocks. A ratchet handle and a spider hub threaded for 1-inch pipe is furnished as standard equipment.

Net price complete $50.00
West of Rocky Mountains .. 55.00

FREE TRIAL—ABSOLUTELY GUARANTEED

To the Oil Men of the U. S. A.:

Friends—

I want to take a little of your time to tell you that time is the most valuable thing a man has. That's the reason they put a man in jail for crime, which I understand is what they do in some countries. Take his money away from him, and he can go out and get more, the same way. But take his time away from him and he can't replace it.

Lack of time has caused more men more trouble than lack of money. Some fellow might have got across the crossing, if he had had time. He may have had eleven hundred dollars in his jeans, but eleven seconds was worth more right then than eleven hundred dollars. Of course he could have taken time, but he didn't.

And, if he hadn't been able to get time, he probably wouldn t have had the car in the first place. Pretty nearly all our business is done on time. I wish to heaven our work was. But, if a man can get money on time, and gets to work on time himself, he will pay it back on time, and make a little in the meantime.

They say that time is money, but I argue that time is more than money. The money a man wastes he can make up in time, but he never can make up in money the time he wastes. What do they call a man s wages? His time. And it is a better name, because that is what someone buys, whether he's a plumber or a bank president.

The man who buys another man's time is entitled to full measure, just the same as a man who buys another man's apples. Very few men would charge a man for a bushel of apples and then deliver only three pecks. And yet once in a while some fellow thinks that three pecks of time is plenty close enough.

Of course there is a time for everything, a time for play as well as a time for work. A man can't work all the time. The thing to do is to work when it is time to work, but take a little time to play when there is time. We all ought to have a good time, but we will never have good times if all we think about is a good time.

And, because time is so much more valuable than money, the money you save on a cheap tool never makes up for the time you waste in using it. That is the reason why men who think about their money and their time use Nye tools every time. They work faster, last longer, and save both time and money.

Yours all the time,

HARRY G. NYE.

Otherwise Known As

THE NYE TOOL & MACHINE WORKS

4120-30 Fullerton Avenue

Chicago, Ill.

(Copyright, 1928, by Harry G. Nye. All rights reserved)

The rugged construction and few working parts account for the simplicity and durability of these Nye Receding models. They do the work easily and efficiently.

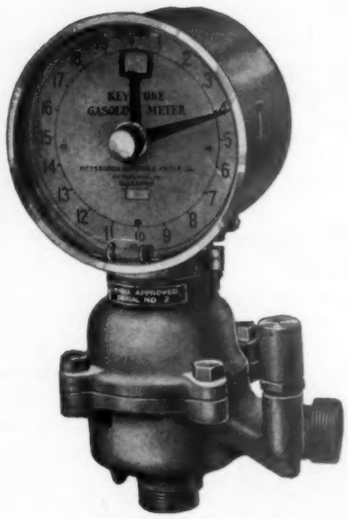
No. 1 Nye Receding Pipe Threader, complete ....$9.60 net
West of Rocky Mountains $10.80

Nye thin blade cutter wheel, made to fit all standard makes of pipe cutters, and guaranteed against breakage in use. Made both in smooth and knurled edge.

The No. 1A is the same as the No. 1, except that it is equipped with a ratchet for work where space is restricted.

No. 1A Nye Receding Pipe Threader, complete ...$12.00 net
West of Rocky Mountains $13.50

Keystone Gasoline Meters Mean *Quicker Service*



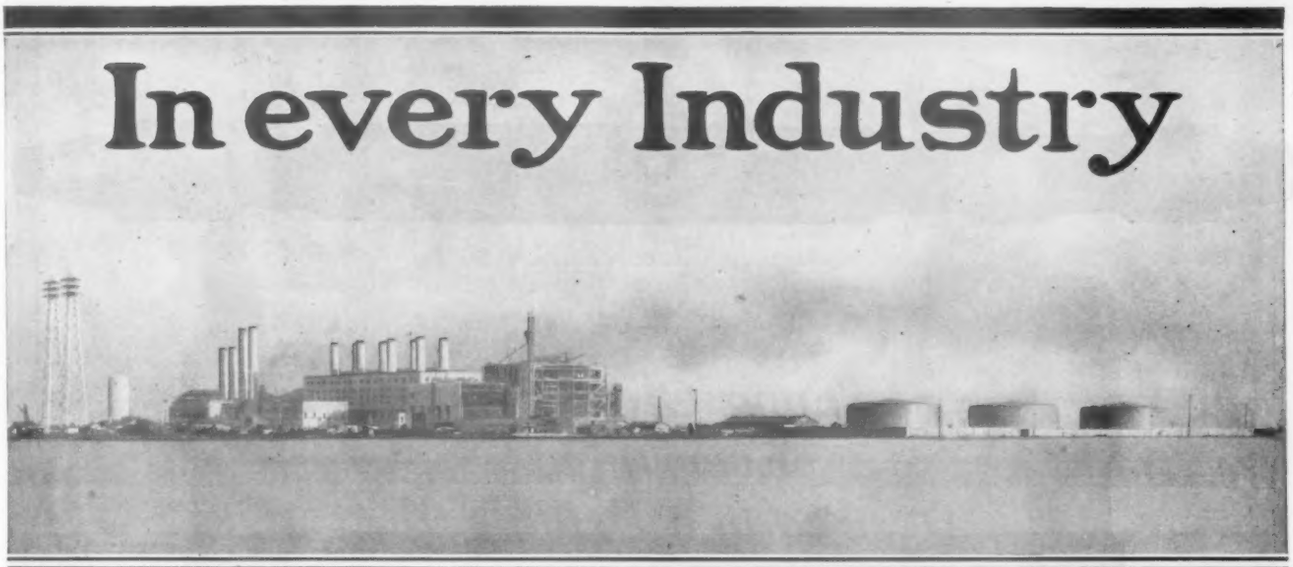
HERE is another example of one of the thousands of gasoline service stations using pressure systems for dispensing gasoline. Each year more operators turn to this quicker and most accurate way of serving their customers.

The Keystone Service Station Gasoline Meter has been adopted as the standard meter where service and full measure are the watchword.

PITTSBURGH EQUITABLE METER COMPANY
PITTSBURGH, PA.

BRANCH OFFICES
New York, New York.
Chicago, Illinois.
Dallas, Texas.
Los Angeles, Cal.
Tulsa, Oklahoma.
Seattle, Washington.
Columbia, S. Carolina.
Salt Lake City, Utah.
Kansas City, Missouri.

In every Industry



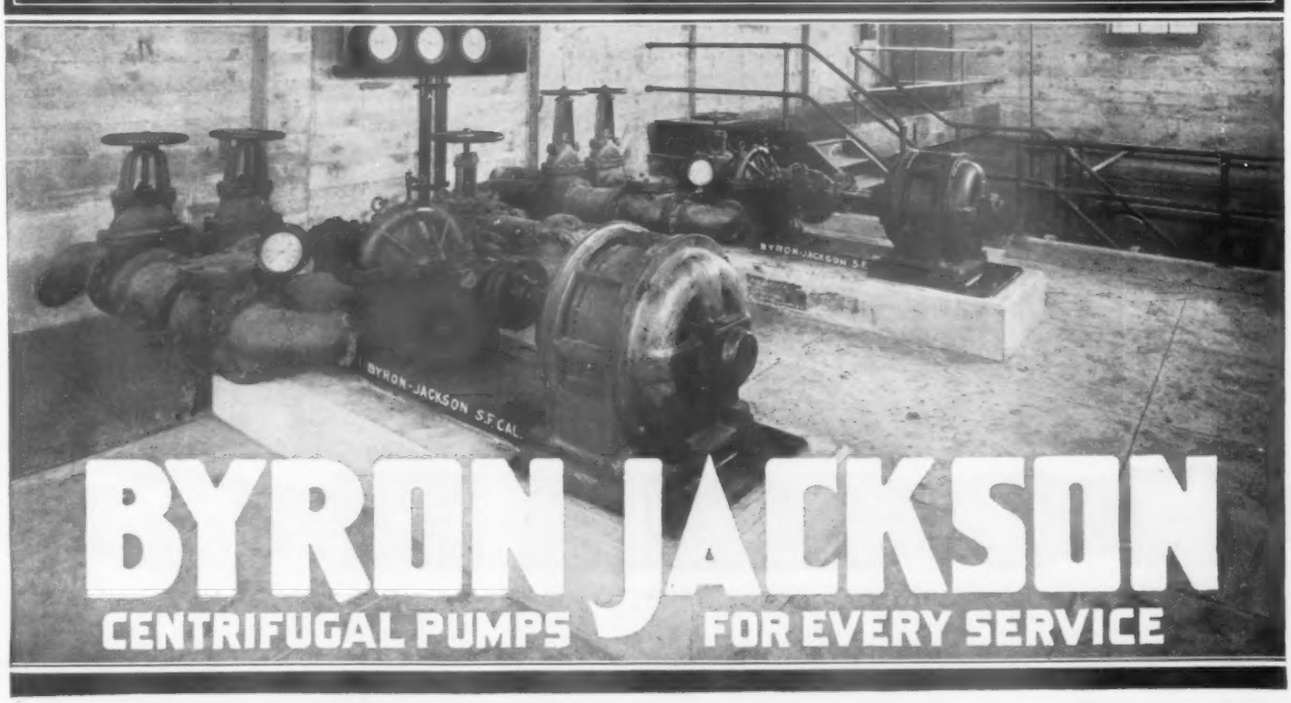
In every industry in which pumps are used the influence of Byron Jackson equipment is evident. Measured in terms of present day economy and efficiency, Byron Jackson pumps have proven to be the best value, dollar for dollar. This is possible because this company, for more than fifty years, has been building nothing but pumps—pumps that always measure up to the best in design and materials.

BYRON JACKSON PUMP CO.

Factories: BERKELEY, Los Angeles, Visalia
Branches: San Francisco, Portland, Salt Lake. Dallas, Phoenix

[*Above:* Exterior of steam plant, Long Beach Edison Company, largest in the west]

[*Below:* All electricity developed in this plant made possible by these pumps, which handle fuel oil from supply tank (upper right) to tank feeding boilers]



Patented Oct. 6, 1925—Other Patents Pending

Patented Oct. 6, 1925—Other Patents Pending

Spang Gives You Everything Desired in a Drilling Jar

More footage with maximum safety—that is what you want in drilling jars and that is exactly what you get when you use *Spang Weldless Drilling Jars.*

The longer and harder you work 'em the more you will be convinced that there's no substitute for *Spang Drilling Jar quality and dependability.*

Patented Oct. 6, 1925—Other Patents Pending

SPANG AND COMPANY

BUTLER, PENNSYLVANIA

Sold by all leading Supply Houses

Patented Oct. 6, 1925—Other Patents Pending

It's the drop-forged high-carbon steel bit that has made this new H. C. Smith Type "C" Coring Outfit so popular. That—and the money-saving renewable cutterhead feature—has kept the Smith factory busy turning out the Type "C" fast enough to keep up with the demand. This new Type "C" was built in response to a demand for better coring tools. The bit (drop-forged high-carbon steel) is especially adapted for the use of hard sets such as Borium, Dymonettes, Titan, etc., and hard facing metals such as Stellite and Stoodite.

Placing the core-catcher in the bit sub allows circulation closer to the teeth and assures a clean core in all formations. Cutterheads are economically replaced by new ones when worn, instead of rebuilding them. *We guarantee the Type "C" to take perfect cores in any formation penetrated by a fishtail or disc.* Write for the latest information.

The Type "C" Bit

H. C. SMITH

Type C Coring Outfit

H. C. SMITH MANUFACTURING CO., INC.
Whittier, California

Branch Offices and Warehouses:
Taft, Calif Bakersfield, Calif Ventura, Calif.
Oil Well Supply Co., Exclusive Distributors, All Over the World.

STEEL TANKS

—ALL SIZES UP TO 80,000 BARRELS FOR EVERY OIL STORAGE OR REFINERY PURPOSE

PLUS

REAL TANK SERVICE

A COMPETENT engineering department—large stocks of steel, a well equipped plant manned by skilled workmen, close proximity to the oil fields where expert erection crews constantly maintain—certainly makes "United" the ideal place to secure your tank requirements.

STANDARD SIZES IN STOCK FOR PROMPT SHIPMENT

Wire—Write—Phone

UNITED IRON WORKS, Inc.

GENERAL OFFICE:
KANSAS CITY, MO.

SALES OFFICE:
Tulsa, Okla.
114 N. Rosedale

"UNITED" IRON WORKS INC. U.S.A. FOR SERVICE

SALES OFFICE:
Dallas, Texas
Magnolia Bldg.

No. 1 High Test Welding Rod

Oxweld's answer to the demand for stronger welds

HIGHER pressures and greater stresses require steel welds of greater strength. To answer this new demand, Oxweld made the No. 1 High Test Welding Rod.

Any operator can produce welds with greater tensile strength by using No. 1 H. T. Rod. This has been proved time and again in all kinds of industrial work. A recent test in the welding shop of an oil refinery showed an increase of 9,000 pounds in the tensile strength of test welds on the first trial.

Moreover, welders can work faster with Oxweld H. T. Rod. This reduces welding costs.

Wherever the strength of welds is an important factor, it will pay you to use Oxweld High Test Welding Rod.

OXWELD ACETYLENE COMPANY
Unit of Union Carbide and Carbon Corporation

UCC

NEW YORK CITY, 30 E. 42d St. STOCKS IN 38 CITIES
CHICAGO, Peoples Gas Bldg. SAN FRANCISCO, Adam Grant Bldg.
IN CANADA, Dominion Oxygen Company, Ltd., Toronto

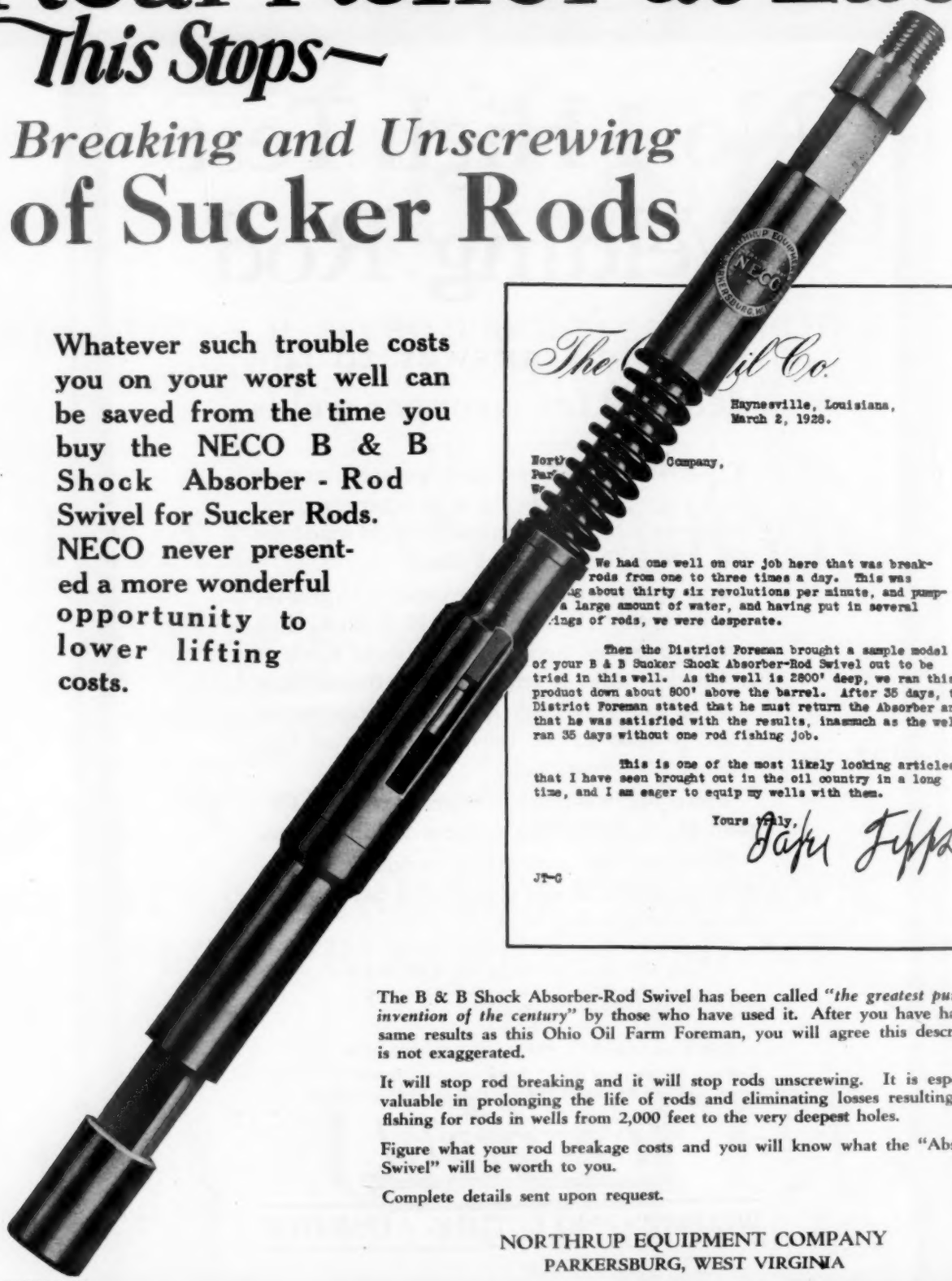
Oxweld

WELDING AND CUTTING APPARATUS

Real Relief at Last

This Stops—

Breaking and Unscrewing of Sucker Rods



Whatever such trouble costs you on your worst well can be saved from the time you buy the NECO B & B Shock Absorber - Rod Swivel for Sucker Rods. NECO never presented a more wonderful opportunity to lower lifting costs.

The [illegible] Oil Co.

Haynesville, Louisiana,
March 2, 1928.

North[illegible]
Par[illegible]
W[illegible] Company,

We had one well on our job here that was breaking rods from one to three times a day. This was running about thirty six revolutions per minute, and pumping a large amount of water, and having put in several strings of rods, we were desperate.

Then the District Foreman brought a sample model of your B & B Sucker Shock Absorber-Rod Swivel out to be tried in this well. As the well is 2800' deep, we ran this product down about 800' above the barrel. After 35 days, the District Foreman stated that he must return the Absorber and that he was satisfied with the results, inasmuch as the well ran 35 days without one rod fishing job.

This is one of the most likely looking articles that I have seen brought out in the oil country in a long time, and I am eager to equip my wells with them.

Yours truly,
Jake Fippa

JT-C

The B & B Shock Absorber-Rod Swivel has been called *"the greatest pumping invention of the century"* by those who have used it. After you have had the same results as this Ohio Oil Farm Foreman, you will agree this description is not exaggerated.

It will stop rod breaking and it will stop rods unscrewing. It is especially valuable in prolonging the life of rods and eliminating losses resulting from fishing for rods in wells from 2,000 feet to the very deepest holes.

Figure what your rod breakage costs and you will know what the "Absorber-Swivel" will be worth to you.

Complete details sent upon request.

NORTHRUP EQUIPMENT COMPANY
PARKERSBURG, WEST VIRGINIA

PATENTED

NECO THE PUMPING EQUIPMENT YOU WILL EVENTUALLY USE

Say you saw it in The OIL WEEKLY

Quality offers a reason!

There is no economical substitute for Quality!

Axelson Machine Company
P. O. Box 337
Los Angeles

New York City
St. Louis
Tulsa

Mid-Continent Distributors
Frick-Reid Supply Company

Eastern Distributors
Frick & Lindsay Co.

Axelson Pumps & Sucker Rods

There is no economical substitute for quality.

Where Rodwear *and* Corrosion make short work of Ordinary Tubing

1 Cheaper Metal
2 Poor Wrought Iron
BYERS '28
the Spiral Stripe
protects you against mistakes and substitution
Also look for name and year rolled in metal

Galvanized Tubing

Byers Galvanized tubing has shown itself so vastly superior to other galvanized tubing in nearly every field where excessive corrosion is experienced, that it is being rapidly adopted by all those who have watched and compared its service with that of other kinds of tubing.

Rods Nos. 1 and 2 were in service in the same location—two bottom joints—in the same well, for the same length of time. Rod No. 1 was of ordinary metal, Rod No. 2 of a poor quality wrought iron, probably "busheled" from a mixture of steel and wrought iron scrap. While both were severely attacked by corrosion, Rod No. 1 suffered nearly twice as heavy a loss as No. 2. The tubing, of ordinary quality, had to be renewed at frequent intervals.

If accounts were kept of the cost of using rods and tubing not made of genuine wrought iron, there would be a heavy deficit on the side of lower priced tubing and pump rods. Byers tubing costs a little more at first, being made of genuine wrought iron, but in the end pays out handsomely.

Byers tubing not only resists corrosion but rod-wear. The frictional heat generated by the rods is very much smaller where wrought iron tubing is used, and crystallization and wear are correspondingly reduced.

A. M. BYERS COMPANY

ESTABLISHED 1864 PITTSBURG, PA.

BYERS TUBING

GENUINE WROUGHT IRON

Distributors

Jarecki Mfg. Co. Oil Well Supply Co.
International Supply Co.

The D+B Carlson Gas Anchor insures highest *pumping* efficiency

The D+B Carlson Gas Anchor is designed to overcome gas interference so as to insure the highest pumping capacity of each individual well. It has been subjected to every conceivable test in hundreds of wells and never has failed to increase the production of each one in amounts ranging from ten to two hundred barrels per day.

Forty wells selected at random show an average increase of 62.6 barrels per day through the use of this device. Numerous wells producing thirty barrels normally have been increased to forty barrels. One well was increased from forty to seventy barrels, with an increase of 100,000 feet of gas. Several wells were increased over one hundred barrels; another, more than two hundred barrels over previous production.

The D+B Carlson Gas Anchor is essential to maximum capacity in every well where gas interference prevails. It gives complete separation of gas from oil before the fluid enters the pump, traps the gas and eliminates pockets. It admits full volume of oil; stabilizes the fluid; increases pump efficiency; and increases both gas and oil production. Can be run in any oil string in which the working barrel will run; eliminates ball, seat and plunger troubles; and can be set at high or low levels.

A D+B "QUALITY FIRST" PRODUCT

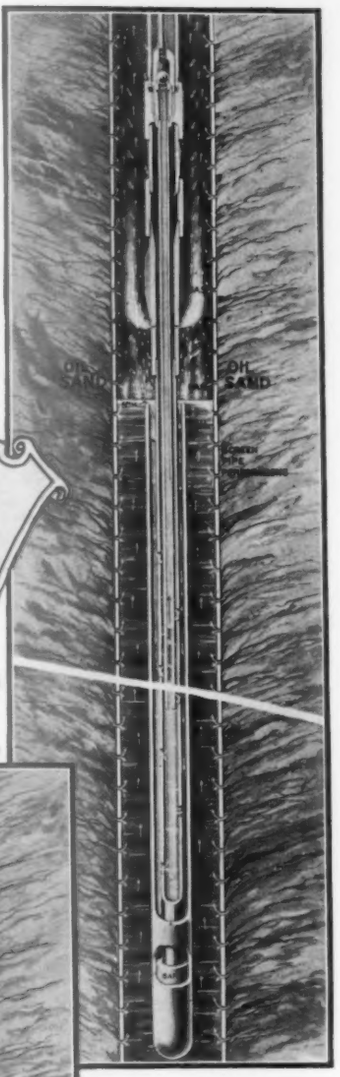


Fig. 1

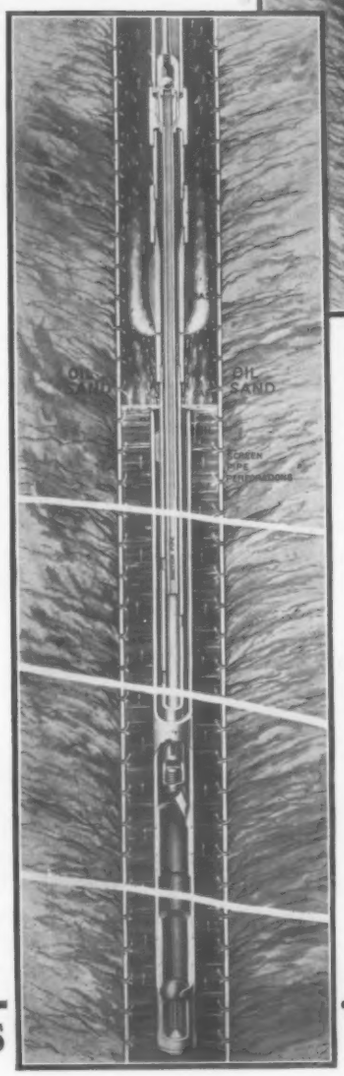


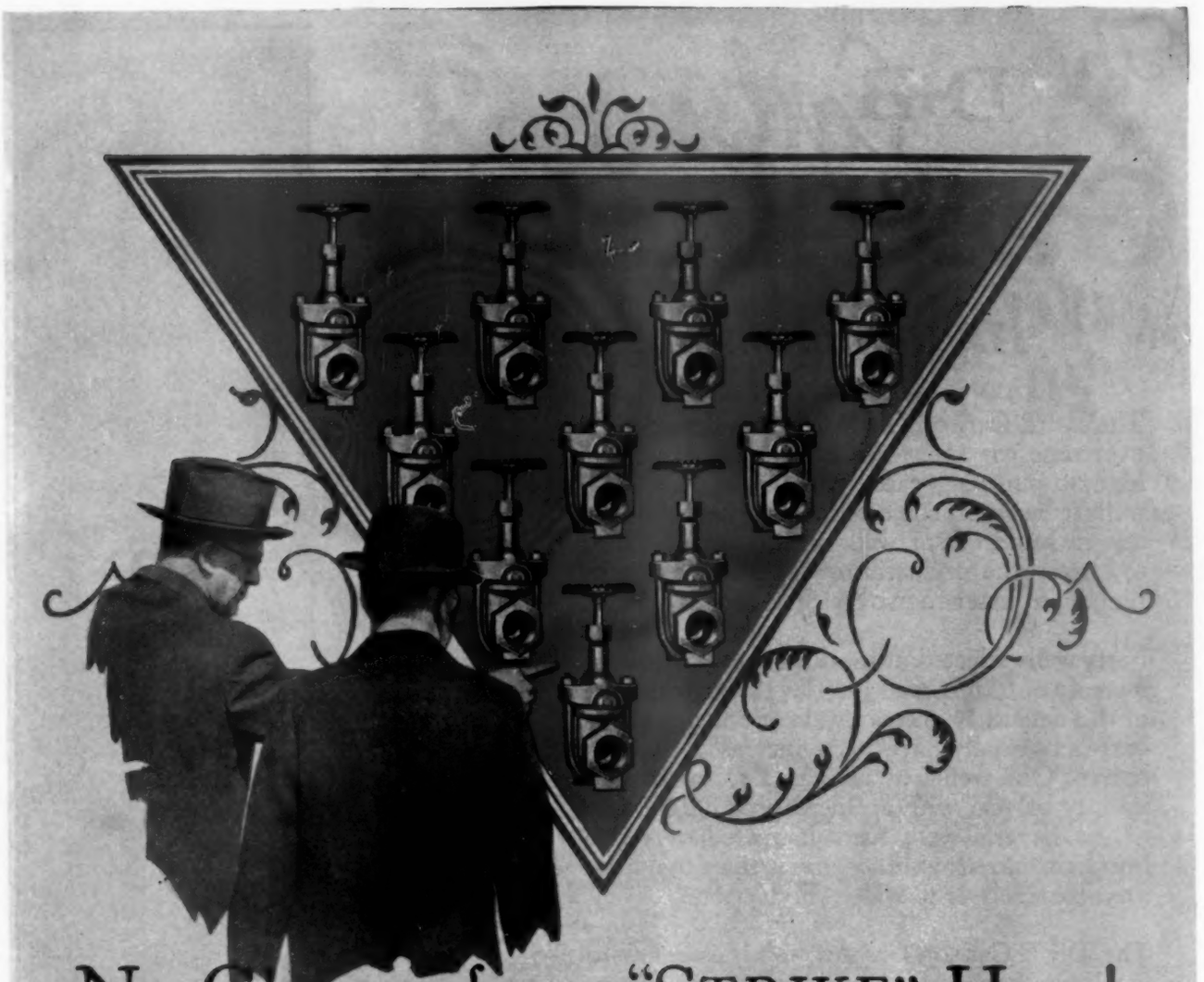
Fig. 2

Patented March 13, 1928. Fig. 1 shows the plain type. Fig. 2 is the anchor with a Reed-Yost Dump Valve which automatically dumps the sand. Send for complete engineering data together with some very interesting performance records.

Manufactured by

D&B PUMP and SUPPLY CO.
Division
of
EMSCO DERRICK & EQUIPMENT CO.
Los Angeles, California
Houston, Texas Dallas, Texas
New York Office 150 Broadway

EMSCO STEEL EQUIPPED WELLS ARE SAFE



No Chance for a "STRIKE" Here!

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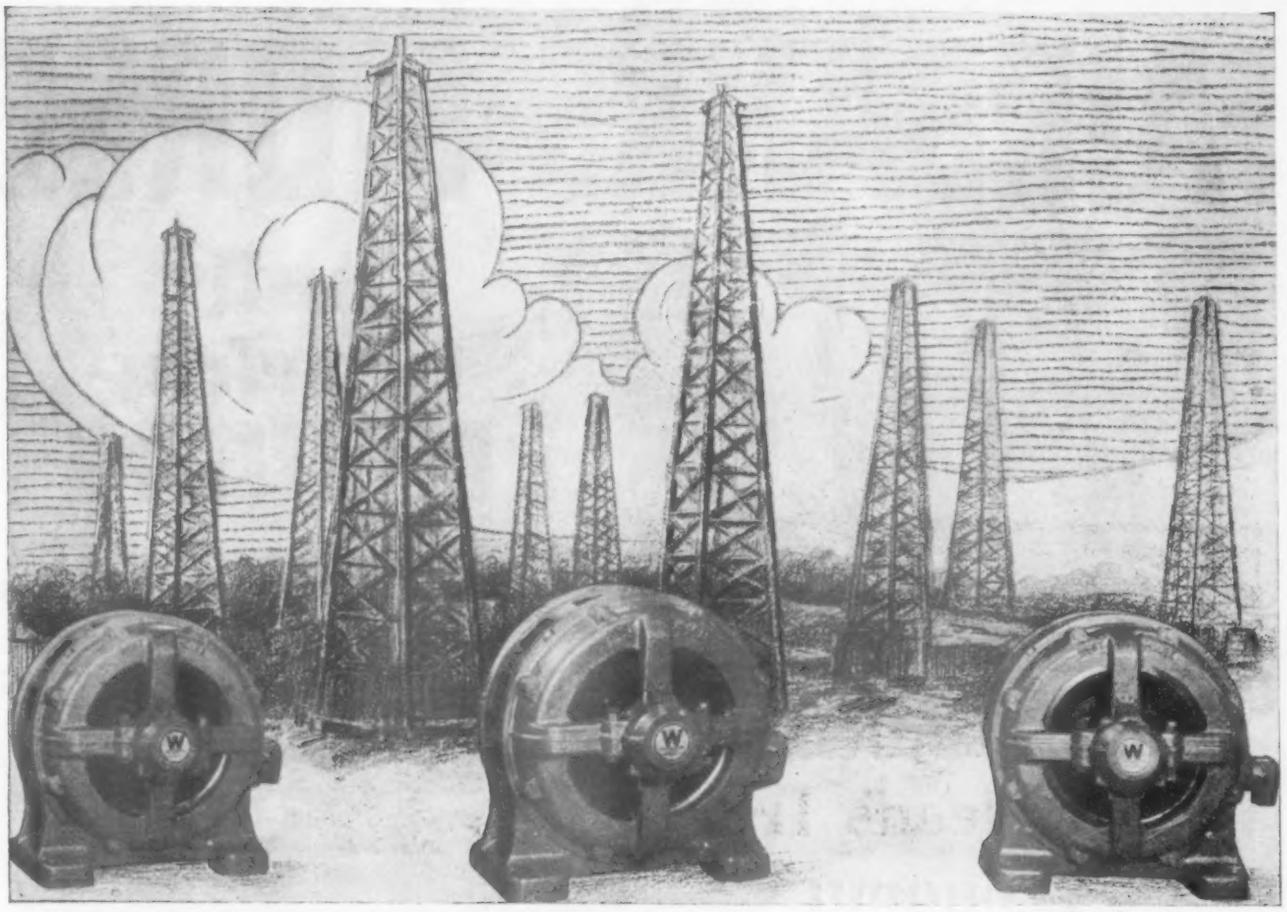

Three of the 42-400 hp. induction motors used for driving centrifugal pumps in a large pipe line installation.

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Designed and applied with full consideration of the requirements of oil fields, Westinghouse motors will stand up under the severest kind of punishment. Experience and tests have unquestionably established the superiority of the electric motor drive to that of other forms of power and the fact that Westinghouse induction motors have unusually high efficiency best explains their economical operation.

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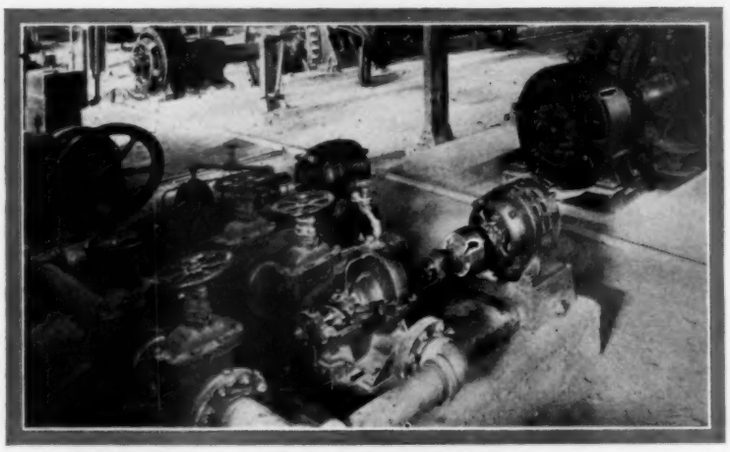
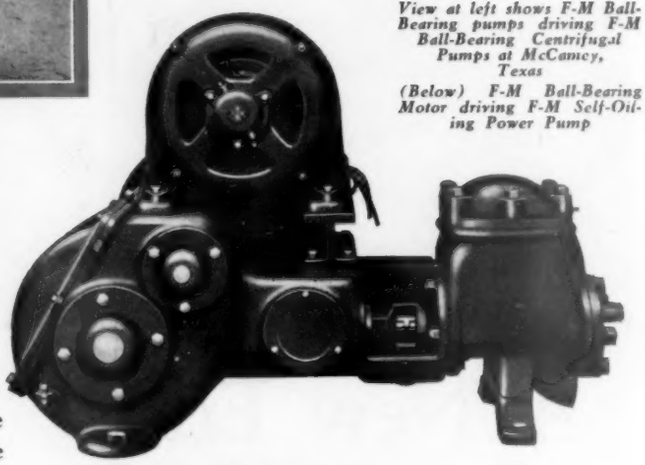


View at left shows F-M Ball-Bearing pumps driving F-M Ball-Bearing Centrifugal Pumps at McCamey, Texas

(Below) F-M Ball-Bearing Motor driving F-M Self-Oiling Power Pump



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F-M Ball-Bearing Motors for the oil industry are built to effect the lowest possible maintenance cost—which means that these motors are truly economical in service. The ball-bearing construction, sturdy frame, extra heavy shaft, and dirt and moisture proof bearing housings are notable features in the long and trouble-free service of these motors.

F-M Ball-Bearing Motors are available in types and size for all purposes, also in a wide range of "Unit-Built" motor-pump combinations.

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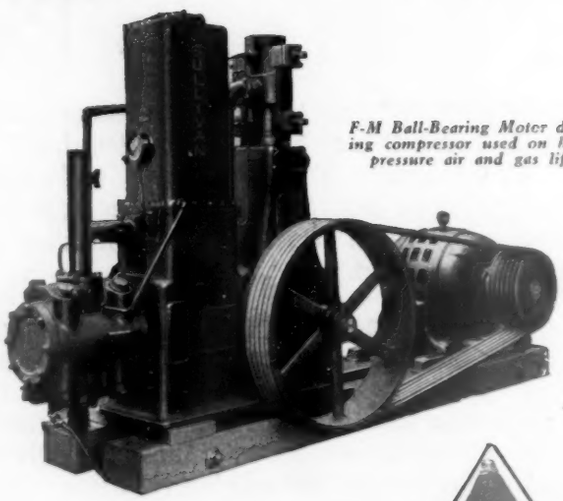

F-M Ball-Bearing Motor driving compressor used on high pressure air and gas lift

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with the

PATENTED

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The patented valve assembly, the vital part of the Baker Drill Pipe Float, is illustrated below. The spring-pressed back-pressure valve opens just far enough to allow free circulation—but no farther. This is accomplished by the steel sleeve placed over the valve spring, which allows the valve to open only a short distance, thus eliminating undue wear.

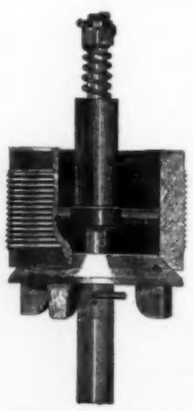
The construction of the valve precludes the possibility of a plugged string, even should the valve become detached from the stem. (Regular inspection will minimize the possibility of such an occurrence, but accidents do not wait on inspections.) The four lugs underneath prevent the valve from seating on the shoulder below; the center projection keeps it from turning over.

There is nothing but a small valve stem guide in the valve cage for anything to hang up on, and—an important feature—the unobstructed enlarged opening below affords free passage for the circulating fluid. The valve assembly is readily accessible for inspection at all times, and can be easily replaced when worn.

Another safety feature of importance is the ease with which the valve assembly may be broken out should the pipe get stuck.

The Baker Drill Pipe Float is made for insertion between tool joints, and may be run as far from the top as the collapsing strength of the pipe will permit. Tables showing distances with various safety factors on request.

The Baker Drill Pipe Float



The Baker Patented Valve Assembly

For complete descriptions, tables, prices, etc., see the Baker catalog. Copy mailed free on request.

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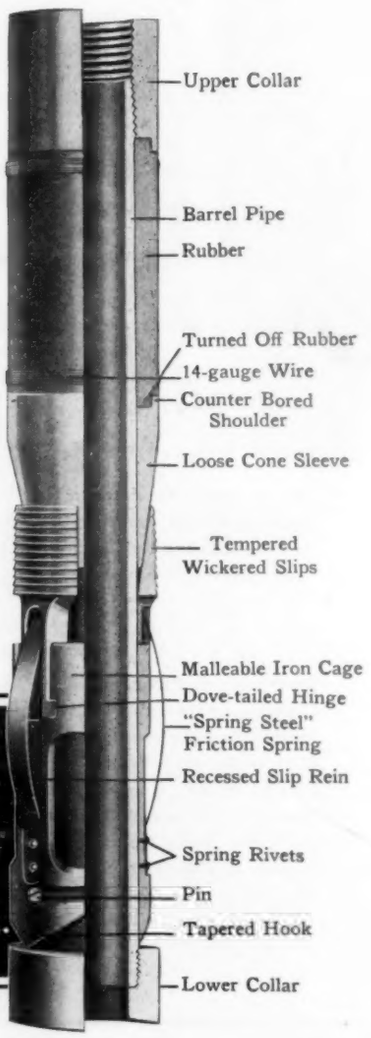

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WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIPMENT

Say you saw it in The OIL WEEKLY

Gasoline Profits Lost in Burning Oil Storage Accumulation

Refiners are not so prosperous as price and movement of gasoline would indicate; West Texas fields to have production limits raised

By KENT RIDLEY

CHANGE in production figures last week as compared with the previous period was so slight as to be negligible. American Petroleum Institute estimates show a decrease of only 1600 barrels, to which all important districts except California and the Gulf Coast contributed. Long Beach in California was up only 3000 barrels, however, despite promise of the big development in the deep sand there. It appears that the decline of the producing wells is faster than can be readily overcome by new completions. Ventura Avenue also was up 2000 barrels, a loss of 1000 barrels at Huntington Beach serving to adjust California to the 4000 barrel gain registered. Newer fields in Southern Louisiana, showing gains totaling around 10,000 barrels daily, brought the total for the Gulf Coast up 7200 barrels after a 2400-barrel loss had been shown on the Texas side.

The change for the week in Texas outside of the Gulf Coast was only 200 barrels increase. In the West Texas district where the daily yield was 294,400 barrels, the change during the week was only 450 barrels—a gain, showing how well the proration rules are being observed in Pecos and Winkler Counties. In the former the voluntary proration agreement is about to be superceded by an official order from the Texas Railroad Commission patterned after the Winkler County order.

Oklahoma continued the consistent fall, dropping 3050 barrels, while Kansas also was down 1400 barrels. Arkansas was down 450 barrels when the new Champagnolle area failed to continue its spectacular rise and dropped 600 barrels. North Louisiana was up 550 barrels.

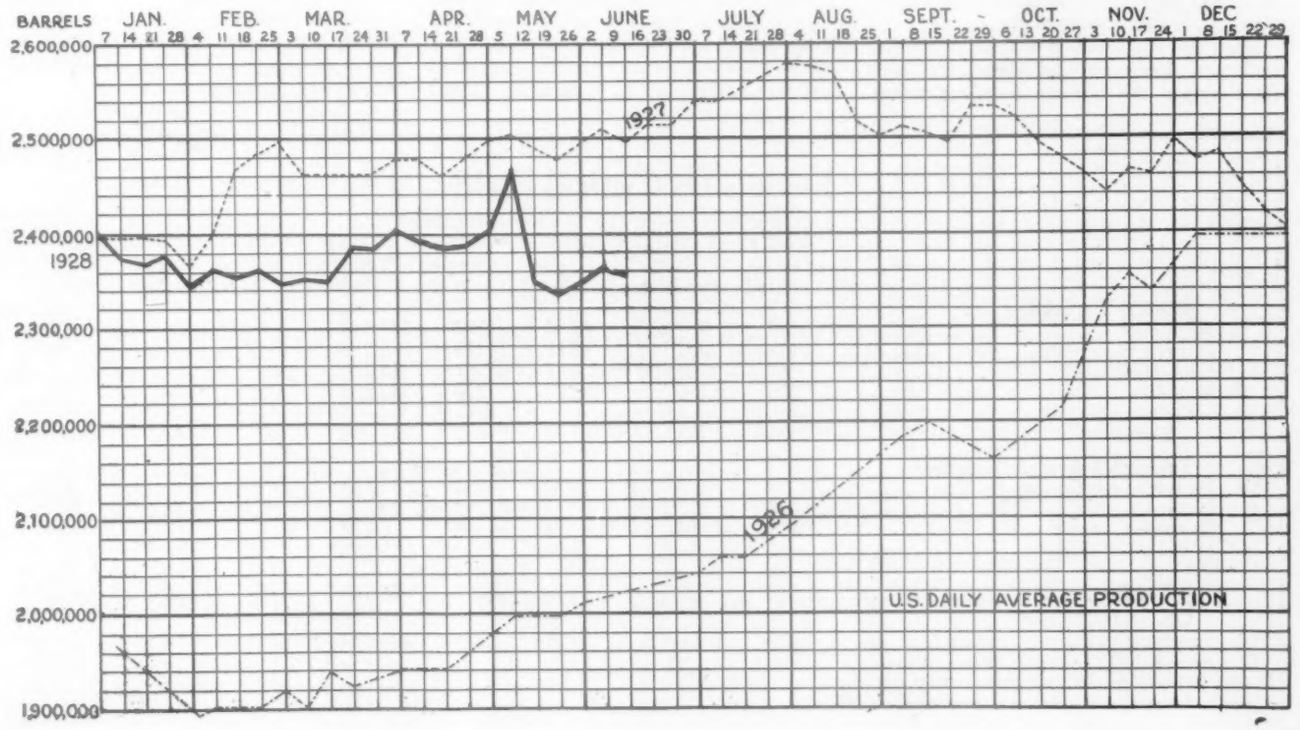
The production quotas of the two largest prorated fields in the West Texas district are to be raised June 15, in accordance with recommendations made recently by the proration advisory committee for each area. The Texas Railroad Commission has ordered the maximum daily output of the Hendrick field to be increased 25,000 barrels, making a total of 175,000 barrels daily and the Yates field proration committee has authorized the field's output to be increased to 60,000 barrels daily, or a boost of 8500 barrels, while plans are being made to give the latter field an additional increase of 5000 barrels daily within the next two months.

Entrance of Roxana Petroleum Corporation into the open crude market in West Texas by reason of the recent completion of the Shell Pipe Line Company's trunk line outlet of 35,000 barrels daily will afford the additional market outlet for the Yates field. Heretofore Roxana has been restricting its crude runs from the Yates field to its allowable production of about 4500 barrels daily, but these runs will be increased to 13,000 barrels daily, thus enabling all producers to obtain a production increase with Roxana paying the recognized posted price of 60 cents per barrel at the well.

Humble Pipe Line Company has been running 30,000 barrels daily from this field, including the oil produced by Humble Oil & Refining Company, and proposes to step its runs up to 35,000 barrels daily upon completion of new loops on its trunk line system.

Roxana is completing its second 1,000,-

UNITED STATES CRUDE PRODUCTION TREND



Comparative Statement, Mid-Continent Operations

Oklahoma—	Loc.	Rigs	Drlg.	S. D.	Comp.	Total
Burbank	2	8	8	0	1	19
Outside-Burbank	2	7	17	5	3	34
Ponca City	7	0	24	16	5	52
Enid	..	3	24	13	1	41
Cushing	1	4	35	6	1	47
Tulsa-Okmulgee	12	33	73	24	9	151
Muskogee	..	10	48	19	12	89
Shawnee-Seminole	24	38	164	15	17	258
Lawton-Duncan	12	4	40	24	10	90
Ardmore	..	3	51	4	3	61
Total, Oklahoma	60	110	484	126	62	842
Kansas	37	53	159	52	36	337
*Texas	..	101	653	427	80	1,494
New Mexico	..	9	23	22	1	55
Okla., Tex., N. M.	97	506	1,319	627	179	2,728
Previous Week	94	500	1,362	609	180	2,745
Week, May 16	100	490	1,333	632	216	2,771
Week, May 9	101	505	1,357	637	204	**2,804
Week, May 2	90	508	1,312	659	226	2,795
Week, May 25	100	489	1,366	671	161	2,787

*Texas—Includes Central Texas, Panhandle, North Central Texas, West Texas and Laredo.

**Only time this year operations have totaled above 2800 for the area. Lowest operations this year, week ending February 1, total 2689.

000 barrel capacity crude reservoir in the West Texas district, and with the aid of the Shell line, is in a strong position to carry on an active crude buying campaign, especially since the enforcement of proration in the Hendrick, Yates and Llano fields is to greatly restrict its own production. Roxana made its first bid for a position among the producers in the Chalk-Roberts field, Howard County, during the past week by acquiring a half interest and operating control over a small producing lease, and in all probabilities will bring the Shell line into that field since the trunk line is within 10 miles of the heart of the producing area.

Two large independent interests are considering the erection of refineries near this field to market their own production, but in the meantime all wells in the deep lime are shut by mutual agreement for lack of a pipe line outlet.

Reaction sustained lately in prices on fuel oils, kerosene and distillates have counteracted the upward trend of prices maintained by gasolines, and Mid-Continent refineries are making less money than a few weeks ago when gasoline was at a lower price level. Cracking plants are being worked overtime to manufacture the maximum volume of gasoline, which is the principal profit earner for the plant owners at present. Plants not equipped with cracking units are having difficulty in marketing their burning oils even at the low quotations now prevailing. North Texas fuel oil is experiencing a dull market at 65 cents per barrel, or fraction under, and kerosene is ranging from 4½ to 5 cents per gallon. U. S. motor gasoline prices were officially posted at 8 cents per gallon during the past week by the Sinclair Refining Company, but the average price on this commodity in the Mid-Continent ranges from 7⅝ to 7⅞ cents per gallon, with a firm demand continuing. Carson Petroleum Company and other export buyers booked more than 2,000,000 gallons of 64-66 gravity export specifications gasoline with North Texas plants last week at 8⅛ cents per gallon.

Total operations in the Mid-Continent area have been slowly and steadily declining over a period of several months. Only once during this year has the total been above 2800; that was on May 9, when 2804 operations were reported. The low figure for the year occurred on February 1, when there were 2689 operations.

That part of Texas which is included in the Mid-Continent is the scene of the greatest activity of the area; but it also showed a decrease in operations from 1518 week before last to 1494 at the end of the past week, according to the following table:

	Locs.	Rigs	Drlg.	S.D.	Comp.	Tot.
Last week	..	101	653	427	80	1,494
Previous week	..	328	668	408	94	1,518

The Shawnee-Seminole sector continues to be the hot-bed of activity in Oklahoma, with a total of 258 operations under way, representing no change in the total of a week ago. An analysis of field conditions in this district is as follows:

	Locs.	Rigs	Drlg.	S.D.	Comp.	Tot.
Last week	24	38	164	15	17	258
Previous week	19	40	160	19	20	258

Field operations in Oklahoma have reached a new low figure with the present report of 842. Activity in the State has been on a decline throughout the year, with the highest figure occurring at the end of the week, January 4, when there was a total of 941 operations. The following table shows the status of operations during the past two weeks:

	Locs.	Rigs	Drlg.	S.D.	Comp.	Tot.
Last week	60	110	484	126	62	842
Previous week	56	110	485	123	72	846

The work of those engaged in curtailment of development and production in the Mid-Continent is reflected in the following statistics covering field operations for the past six weeks. These figures indicate something on the even level of field conditions, with just about enough new work started in the area as a whole to offset the completions.

Details on Critical Fields

	Oil Wells Completed	Total Initial Production	Initial Per Well	Number Producing Wells	Daily Production Barrels	Daily Prod. Per Well	Rigs Up	Wells Drilling
WEST TEXAS—								
Hendrick	190	783,205	4,122	192	143,580	748*	38	127
Church & Fields	181	201,110	1,111	179	41,550	232	1	3
Gulf-McElroy	61	53,500	877	61	15,270	250	1	1
Yates	205	1,350,765	6,589	200	53,805	269	22	6
Totals	637	2,388,580	3,750	632	254,205	402	62	137
TEXAS PANHANDLE—								
Hutchinson County	1,100	545,025	495	966	37,370	39	5	30
Gray County	228	102,265	449	218	20,700	95	15	44
Carson County	179	59,030	330	150	6,810	45	2	8
Wheeler County	42	14,230	339	33	1,045	32	3	11
Totals	1,549	720,550	465	1,367	65,925	48	25	93
OKLAHOMA—								
Seminole	1,337	1,666,456	1,246	1,096	263,074	240	16	56

(*) Production partially pinched.

New A. P. I. Division Interests Engineers

First gathering of division of Development and Production Engineering attracts talent to Standardization conference

By SPENCER W. ROBINSON

COLORADO SPRINGS, Colo.—The appeal of the combination program offered those attending the semi-annual meeting of the Standardization Division of the American Petroleum Institute through the addition of two days devoted to the consideration of the technical activities of the newly created Division of Development and Production Engineering was plainly visible at the first session of this year's gathering Tuesday morning. Representative groups of executive engineers, production men and manufacturers from all active sections of the country were on hand for the welcoming address of J. Edgar Pew and John R. Suman, with a larger number of visitors scheduled for arrival on trains later in the day.

Many of those present put in their appearance at the Broadmoor Hotel, headquarters of the meeting, several days in advance of the business sessions. Tuesday night found approximately 185 registered with a possible extra 100 who had not signed the cards.

The additional attractions offered by the two-day program of the Division of Development and Production Engineering accounted for the large attendance noted at the various group sessions of the general and sub committees engaged in standardization work. A check of these group meetings revealed that production executives and engineers who previously had not visited the committee sessions of the standardization division and were participating in the discussion much valuable data was being added to the deliberations. Further progress is being made by several of the standardization groups with the result that the general movement is rapidly nearing its goal.

Pumping Equipment

Noticeable progress was reported from the Tuesday session of the special committee on the standardization of pumping equipment and engines under the chairmanship of T. E. Swigart, and it is expected that this meeting will see the adoption of several new standards in equipment under this classification.

Mr. Swigart reported that a code of proper field practice for the handling of sucker rods had been compiled under his direction and was to be submitted to a committee of three for editing and revision, after which it was hoped it would be acceptable to the general committee and made available to the industry.

Particular attention was being paid to the problems and methods of gauges and gauging practice and in order to facilitate this work there were on hand S. B. Terry, assistant manager of the guage division of the Pratt & Whitney Company which has been selected by the standardization division to develop and manufacture the necessary manufacturer's gauges, and H. W. Bearce of the Bureau of Standards of Washington.

Those group sessions which were not completed during Tuesday will continue through Wednesday, after which reports will be submitted to the general committee on standardization which will meet Wednesday evening.

Summarized reports of the standardization work are to be presented at the opening meeting of the division of Development and Production Engineering Thursday morning.

New Division

In opening the semi-annual gathering, Mr. Pew briefly reviewed the progress of the standardization work and especially stressed the value of bringing the Division of Development and Production Engineering into these meetings as a means of enlisting the field men in the successful application of standardized equipment.

The meeting here this week is the first general meeting of the Division of Development and Production Engineering which was established at Chicago last year, and John R. Suman, general chairman of the division, outlined the purposes of the organization and gave a progress report on what has already been accomplished by the regional sections of this division.

The meeting is to be concluded Saturday with the annual golf tournament with prizes offered for low net flights and driving. Prizes are to be presented at the golf dinner Saturday evening.

THE Standardization Division of the American Petroleum Institute heartily endorsed the International Petroleum Exposition in a resolution passed at the opening session at Colorado Springs Tuesday morning and praised the exposition as an educational institution of great value to the industry.

The resolution offered by Ernest J. Nickloss of Tulsa and adopted by the meeting, was as follows:

"Recognizing the great value of the International Petroleum Exposition as a clearing house of ideas and a great meeting place for oil men, and appreciating its great importance to the advancement of the work of the Standardization Division of the American Petroleum Institute as a display room, workshop and laboratory for scientific, technical and educational advancement and development,

"We, the members of the Standardization Division, in regular meeting assembled, do hereby heartily endorse the International Petroleum Exposition as a permanently established institution of world wide influence, and pledge our moral support to its further advancement."

Federal Board Making Up Third Report

Washington. — The Federal Oil Conservation Board hopes to complete its third and final report dealing with all phases of world petroleum resources and conditions by December, at which time it will be studied with the object of working out means of oil conservation.

The report will contain information and statistics on production for every country where oil is being produced and distributed. It is being worked up by research workers of the board, field technicians of the Geological Survey, Bureau of Mines and other governmental agencies associated with minerals. Statistics on production have also been obtained from the majority of the oil companies of the world. The data will be correlated with other information to make a comprehensive report.

The two previous reports pertained exclusively to American petroleum resources and to possible petroleum substitutes. The third report will take world conditions of production and consumption into consideration because of large exports of the natural products from this country.

The Federal Oil Conservation Board is composed of the secretaries of the interior, commerce, war and navy.

Method for Appraising Results of Production Control

By HALLAN N. MARSH
General Petroleum Corporation

SOME of the factors that limit the ultimate recovery of oil sands are beyond the control of the operator, but other factors are to some extent subject to control. That the ultimate recovery from a well or group of wells is partially dependent upon the way in which the property is operated has been recognized, but just how wells should be operated to secure the greatest recovery is still largely a matter of opinion rather than of definite scientific knowledge.

This paper is the result of statistical research into a few of the almost infinite number of oil production problems that need investigation. It sets forth a convenient method of estimating the effect of changes in operation upon ultimate recovery and shows the results of such changes in certain specific cases. It it found that in most of the cases investigated, an increase of operating back pressure with consequent reduction in daily rate of production has given indication of resulting in large increases in ultimate oil rceovery. Such effects as the indicated reduction in ultimate oil recovery from an old well due to drainage from a new well nearby, are shown, as is the relation between gas-oil ratio and ultimate recovery for certain wells.

This paper was prepared for presentation before the Semi-Annual Standardization Conference of the American Petroleum Institute at Colorado Springs, June 12 to 15, 1928.

THE factors affecting the ultimate recovery of any well may be broadly grouped as those over which the operator has no control, and those which are at least partially, and in some cases, subject to control. Chief among the first class are the character of the geologic structure, the thickness, extent, porosity, grain size, and partitioning or lenticularity of the sands, and the contents of the structure as regards amount, physical characteristics, and distribution of oil, gas, and water. These factors will not be discussed.

Chief among the group of factors subject to control are the manner in which the well is drilled, cased and tubed for production, the way the well is operated, and the proximity and operation of other wells. While the first of these three, the drilling and casing of the well, is of great importance, it will be omitted from this discussion as mechanical methods of completing wells are fairly well understood and no new information is made available in this paper. The discussion is therefore limited to the effect upon ultimate recovery of the manners of control of wells, and the proximity and operation of nearby wells.

In the ultimate analysis, the method of operating a producing oil well can only affect the rate of recovery or ultimate recovery of that well by changing the mean effective back pressure against the producing strata, the space distribution of that back pressure, or the time distribution of that back pressure. Oil and gas have no foresight, so to speak, and the rate and ratio in which they enter a well can not be affected by the manner in which they are to be lifted out of the well any more than by the manner in which th eoil is later to be refined, except as the method of production affects the effective back pressure. However, different methods of production may result in different back pressures, and different distributions of back pressure, and thus indirectly affect recovery. It is unfortunate that there is not yet available any practical methods for measuring the pressure at the bottom of an oil well while the well is producing. In the absence of such a device, it is generally necessary to talk about the back pressure in terms of things that affect it and can be observed or measured, such as flow bean size, tubing size, tubing depth, tubing pressure, casing pressure, and production rate.

In the case of a well flowing through tubing, the pressure at the bottom of the tubing is substantially equal to the casinghead pressure. However, tubing is not always run to the bottom of a flowing well, so casing pressure is not a measure of the pressure at the bottom. Where the producing zone is of considerable thickness, not only the pressure at some one level, but at a whole series of levels should be known. Therefore, casing pressure is not an entirely satisfactory indication of back pressure against the oil measures. It is important, however, to remember that recovery is controlled solely by amount and distribution of back pressure. An installation or device that is claimed to increase recovery should be judged by whether it is capable of giving a more suitable pressure or distribution of pressure than can the installation with which it is competing.

A reasonable method for computing the back pressure at various levels in a flowing or gas lift well was outlined by F. W. Lake at the Fort Worth meeting of the American Institute of Mining and Metallurgical Engineers in October, 1927. His analysis is of value in understanding qualitatively the effect of various installations, but unfortunately all the factors necessary for evaluating his equations are not known .

Both theory and observation indicate that rate of production is some inverse function of back pressure,—that is, decreasing back pressure tends to increase production. The corollary of this is that an increased production indicates decreased back pressure. Thus in cases where back pressure can not be measured, changes of pressure may be inferred from changes of production rate.

It is of course believed that drilling new wells is apt to reduce the recovery of old wells in the same zone, and there has been unlimited theoretical discussion of this subject, but little statistical evidence is available as to just how much the recovery of an old well is curtailed by new wells at various distances and completed at various dates. The wisdom of drilling late wells is therefore largely a matter of guesswork. It is believed that the method herein described will throw some light on this problem.

Estimation of Ultimate Recovery

In attempting to estimate the future production of a well, the life of the well should be divided into three periods.

First of these is the flowing period during which the rate of decline is a true measure of the decline of potential production rate, so long as no changes are made such as tubing size or depth, bean size, etc. Estimates of ultimate recovery may be based upon production data during this period. With the flowing period may perhaps be included the time the well is produced by gas lift, provided the installation remains unchanged, and the amount of gas circulated is constant. Sufficient data have not yet been analyzed to determine whether this is always allowable or not. The second period is the early pumping life of a well, when the potential production rate is in excess of the capacity of the pump. During this period the rate of

production is a measure of the capacity of the pumping equipment rather than of the capacity of the well. Estimates of the future production of a well based on this period are inaccurate. It should be noted that the displacement of a pump may be several times the production and its capacity be just equal to the actual production and much less the potential production, because of low volumetric efficiency.

The third period is the later pumping life of a well, when the capacity of the pump is in excess of the potential production so that the actual production is the potential production. During this period estimates of future production are probably most accurate. However, estimates at this stage are of relative unimportance because the remaining production is generally only a small fraction of the total production.

So many different methods have been proposed for estimating the future production of oil wells that it may seem superfluous to bring forward another. Some of the past methods are unsatisfactory because they do not give a satisfactory degree of accuracy, or because they require production data over too long a period without changes in methods of handling wells, to make their application practicable. Many are too cumbersome or involve too much mathematics to be used extensively. Others, although mathematically correct, are liable to lead to erroneous conclusions. None of them is entirely satisfactory for all purposes.

The method about to be described seems superior to any others that have been used in the past, at least for some purposes and as applied to some fields. It is not claimed to be more accurate, but it is believed to be as accurate as the data justify in most cases, it is easy to apply, and the conclusions are apparent as soon as the data are plotted. No computations more difficult than addition and averaging are required,

Most methods have assumed that the ultimate recovery of a well is not under the control of the operator, or at least that the operator does not exercise such control. The method described in this report shows quite clearly that the ultimate recovery of a well is greatly affected by the manner in which it is operated, and that every little change in operating method that causes a change in back pressure is reflected in the indicated ultimate production. This new method of estimating ultimate production provides a convenient means of determining what method of control will lead to the greatest ultimate recovery.

The Rate-Cumulative Production Curve

It has been found that when the rate of production of a well is plotted against the cumulative production of that well, the decline curve so established is generally almost a straight line so long as condition remain unchanged. Plotting such a curve for a period of a few weeks establishes the slope of the line, which may then be extrapolated until it intersects the cumulative production axis. The production rate will then be zero, or in other words the well will have reached its total ultimate production which will be the cumulative production to that point. This forms a convenient and apparently fairly reliable method of estimating the ultimate production to be expected from a well, assuming that conditions remain unchanged. Such curves will be called "rate-cumulative production curves," the name describing the curve by abscissa and ordinate.

If conditions are changed, either in the operation of the well concerned or of a neighboring well, or if a new well is brought in nearby in the same horizon, then the slope of such a decline curve is apt to change. This indicates that the change of conditions has altered the expected ultimate recovery, and this change of expected recovery can be quickly estimated as the difference on the cumulative production axis between the points where projections of the new and old rate-cumulative production curves intersect it when extrapolated.

This form of decline curve is believed to be better than the customary curve of production rate plotted against time, for the purpose of estimating ultimate recovery and of observing the effects of changes in operating methods, because the ultimate recovery under any set of conditions is an intercept value which may be read directly, and also because changes are apparent at a glance. Ultimate recovery could only be estimated from the familiar rate-time decline curves by first extrapolating a curved line, which can only be done accurately by some mathematical method, and then integrating the area under the curve by an instrumental or mathematical method. Changes of rate of decline are not so apparent on the old type of curve as on the new because a change of slope is not so apparent on a curved line as on an otherwise straight line. Also rate-time curves are nearly vertical in the early life of the well, and nearly horizontal in the late life of the well, so that during these periods a large change of rate of decline causes only a small change of direction of the curve. On the contrary, rate-cumulative curves if properly drawn have a slope somewhere near 45 degrees, at which angle any percentage change in rate of decline makes the greatest change of direction of the curve. On the average well in the latter stage of its history any change in rate quickly shows up; for example, old wells in Coalinga. The production is so steady it is almost impossible to guess the future production.

FIG. 1.
COMPARISON OF TWO FORMS OF DECLINE CURVES DERIVED FROM SAME DATA
(Hypothetical Case)

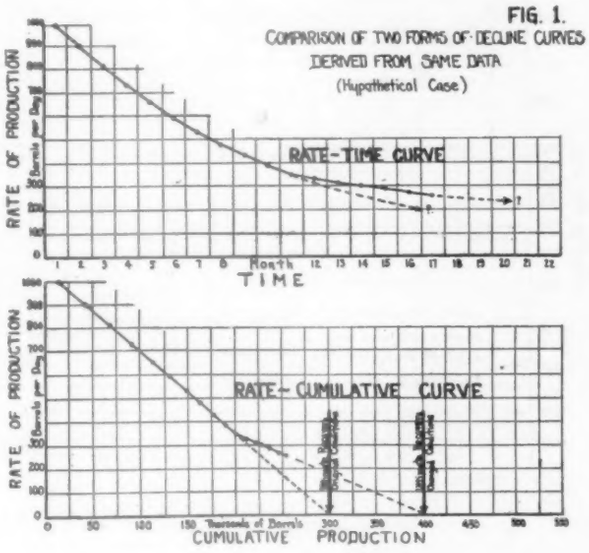


Figure 1 illustrates the differences between the old and new forms of decline curves, for an imaginary well. The first curve is the customary decline curve of production rate as a function of time or date. The second straight line decline curve is derived from the same data, daily rate of production being plotted against cumulative production. Such a curve is easily constructed by totaling the daily productions on an adding machine, taking off subtotals once a week or at any other convenient interval, and plotting the rate of production against the corresponding sub-total.

For purposes of illustration, it was assumed that in November some change was made in the operation of the well that reduced the rate of decline to half of the previous rate. The upper branch on each of the charts shows this changed condition. The two differences previous described are apparent. Looking only at the first chart it would be difficult to tell even which branch of the curve was the smooth continuation and which represented a change of conditions. It is probable in fact that the change of decline rate would pass entirely unnoticed even though it were a 50 per cent. change. With a curve showing the performance of an actual well it would be still more difficult to detect a general change because there would be many minor and temporary changes resulting in irregulari-

ties of the curve that would obscure the big change, and even a careful operator might change back to the original conditions without realizing that he was making a mistake. Estimating the differences between the ultimate recovery resulting from the two sets of conditions would be a task for a mathematician.

Looking now at the lower chart based on cumulative productions, the same change is so striking that it could not possibly be overlooked. The improvement is so marked that one would not be apt to change back to the original condition. Moreover, the ultimate recovery to be expected under either of the conditions of operation can be quickly estimated by merely continuing the curves as shown dotted. The expected ultimate recovery is the value of cumulative production where the dotted line hits the zero production rate line.

It is not expected that this method is infallible or absolutely accurate, but it is held to be as reliable and correct as the data justify; at the same time much more convenient; and to give results much more apparent than customary methods. Certainly rate of decline is a measure of efficiency that needs to be studied and made apparent.

It can be demonstrated mathematically that a rate-cumulative curve which is a straight line is equivalent to a constant percentage decline curve, which is a straight line on semi-logarithmic paper. The assumption that oil well production curves in which the rate of production is plotted against time on semi-log paper are straight lines, has been seriously criticized. By inference, the same condemnation applies to rate-cumulative curves if assumed as straight lines.

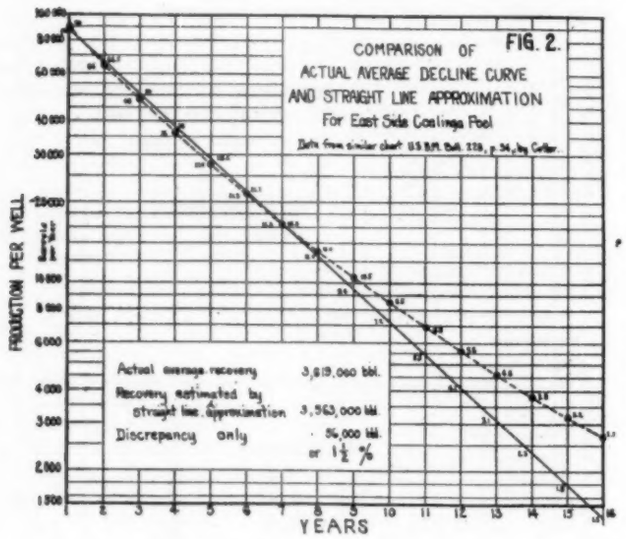


FIG. 2.
COMPARISON OF
ACTUAL AVERAGE DECLINE CURVE
AND STRAIGHT LINE APPROXIMATION
For East Side Coalinga Pool
PRODUCTION PER WELL
YEARS
Actual average recovery 3,619,000 bbl.
Recovery estimated by straight line approximation 3,563,000 bbl.
Discrepancy only 56,000 bbl. or 1½ %

This criticism may be correct from a mathematical point but at the same time may be more theoretical than actual. Cutler[1] in Bureau of Mines Bulletin 228, entitled "Estimation of Underground Oil Reserves by Oil Well Production Curves," shows curves that are copied in Figure 2. The original is captioned: "Chart to illustrate inapplicability of semilogarithmic paper to production decline curves." Reading from the chart as carefully as possible the values of annual production by years and totaling them gives the following results:

Average recovery	3,619,000 barrels
Recovery estimated by straight line	3,563,000 barrels
Discrepancy	Only 1½%

Anyone even casually acquainted with oil wells knows that all estimates of future performance are only approximate, so that differences of a few per cent. are entirely negligible. Of two methods that agree as closely as this, the most convenient one should be used.

The example of Cutler's illustrates the erroneous conclusions that are apt to be drawn from theoretically good methods. A casual inspection of this chart would lead anyone to the conclusion that the straight line approximation of the true curve is seriously in error. The explanation is that the part of the chart where there is a wide divergence between the two lines is on a large scale, while the part of the chart where the two lines nearly coincide is on a small scale. Semi-logarithmic and logarithmic paper are useful tools for the experienced engineer, but they are not so well suited for a graphic portrayal of facts which is to be studied by a layman, as curves plotted to normal scales.

In order to illustrate how accurately the ultimate recovery of wells can be predicted from their early performance, a few actual examples will be given. Cutler[2], on pages 64 to 68 of Bureau of Mines Bulletin 228, gives coordinates which he says establish the complete decline curve for wells in many fields. He says of them: "These average curves were made in 1921 by the mathematical method from the latest production records available from many thousands of individual wells and properties."

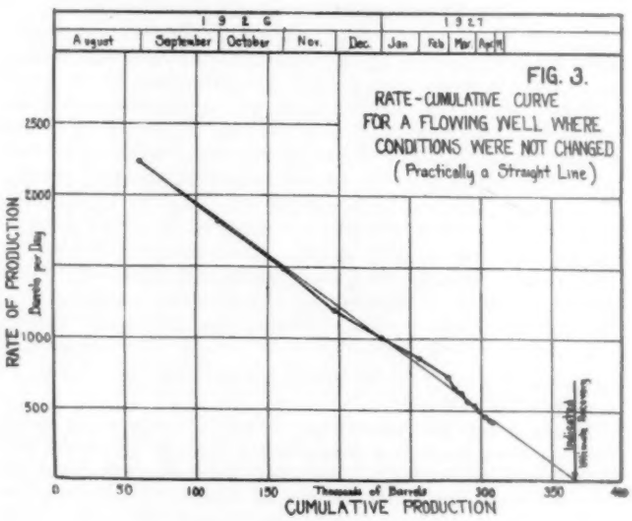
Rate-time curves have been plotted from these data for a few cases, and transferred to a rate-cumulative basis. The actual recovery for 10 years has been totaled, and compared with the recovery estimated from straight line extrapolation of the first year's rate-cumulative curve. Results are as follows:

Brea Canyon	3% Discrepancy
Buena Vista	6% Discrepancy
Whittier	5% Discrepancy

Certainly greater accuracy than this can not be expected in estimating the future production of wells and in fact it is doubtful if either method is within any such accuracy of the actual ultimate production.

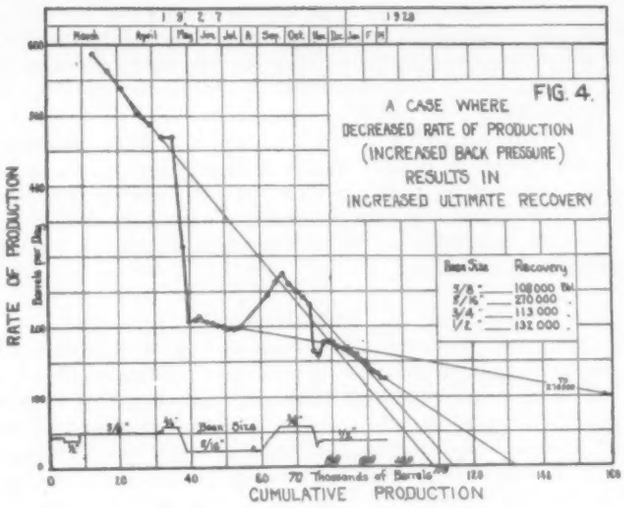
Rate Cumulative Curves of Actual Wells

Figure 3 is the rate-cumulative production curve for a flowing well in the Ventura Avenue field. This is submitted as evidence that such a curve may be practically a straight line so long as conditions of handling the well remain unchanged.



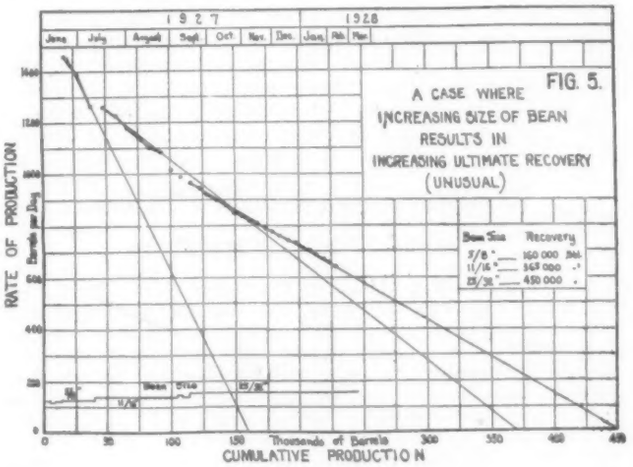
Assuming the rate-cumulative curve to be a straight line, it can be shown that the recovery to any date is to the ultimate recovery to be expected as the decline to the same date is to the initial production rate. Thus while this chart

[1]Cutler, Willard, W. Jr., Estimates of Underground Oil Reserves by Oil Well Production Curves; Bulletin 228, Bureau of Mines.
[2]Opt. cit.



covers less than a year's time, it represents over 80 per cent. of the life of the well in terms of recovery, as the rate of production has declined by over 80 per cent. of the initial production.

The increase of indicated ultimate recovery effected by increased back pressure is very marked in some cases as illustrated in Figure 4. Soon after being brought in this well was flowed through a 5/8-inch bean for several weeks. During this period the indicated ultimate recovery was only 108,000 barrels. The well was then pinched back with a 5/16-inch bean, and the decline rate decreased to such an extent that the indicated ultimate recovery became 270,000 barrels, about two and a half times as much as before. Opening up to 3/4-inch bean affected the well in such manner as to decrease the indicated recovery to 113,000 barrels, whereas pinching it again to 1/2-inch increased the



indicated ultimate production to 132,000 barrels. In this case the smallest bean gave the highest indicated recovery. Many cases of this kind can be cited, and this one seems typical.

A few exceptions to this rule have been found, of which Figure 5 presents a typical case. This well after cleaning up was flowed through a 5/8-inch bean. The decline was very rapid, indicating an ultimate recovery of 160,000 barrels. When the bean size was increased to 11/16-inch, the indicated recovery was increased to 365,000 barrels. Further opening up, to a bean size of 25/32-inch further increased the indicated ultimate recovery to about 450,000 barrels. In this case the largest bean gave the largest indicated recovery. A few other cases of this type might be cited but they are decidedly in the minority among those studied.

[3]Swigart, T. E., paper presented before the Colorado Springs meeting of the Division of Development and Production Engineering of The American Petroleum Institute, June 15, 1928.

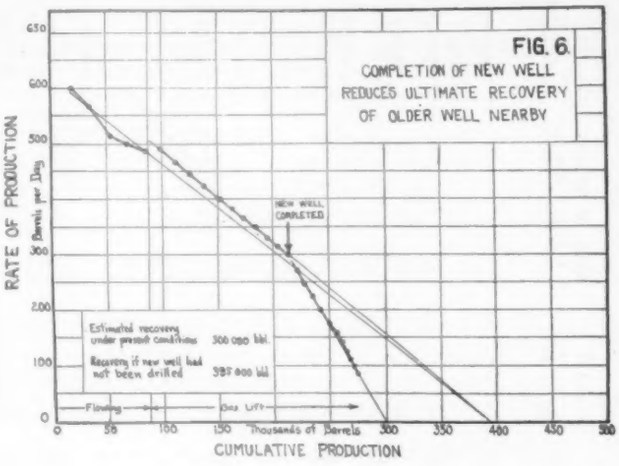
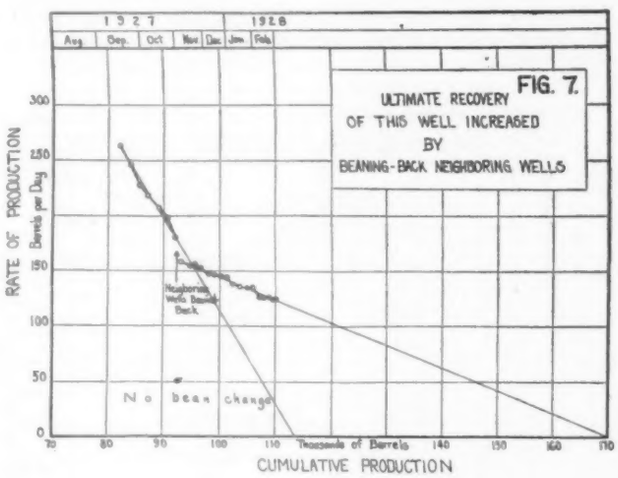


FIG. 6.
COMPLETION OF NEW WELL REDUCES ULTIMATE RECOVERY OF OLDER WELL NEARBY
RATE OF PRODUCTION
Barrels per Day
NEW WELL COMPLETED
Estimated recovery under present conditions 300 000 bbl.
Recovery if new well had not been drilled 395 000 bbl.
Flowing
Gas Lift
Thousands of Barrels
CUMULATIVE PRODUCTION

In a paper entitled: "Methods of Effecting Gas Conservation and Increased Recovery Efficiency in Ventura Field, California," T. E. Swigart,[3] gives several examples of the effect of back pressure on gas-oil ratio and ultimate recovery from wells in Ventura field, California, with more complete discussion of the relations found in wells in that field.

The effect of the completion of a new well upon the recovery of a previous well is clearly shown by Figure 6. This well had an indicated recovery of 395,000 barrels, but completion of a new well nearby reduced it to 300,000 barrels, even though it occurred in the middle life of the older well. It is of interest to note the straightness of this curve both before and after the completion of the new well, and the sharpness of the break.

It should be noted that there was no sharp break in the daily production rate when the new well was completed,—



only a change in rate of decline. For this reason, curves of this sort are necessary to make such important effects apparent. Many similar cases have been observed.

Killing or pinching—back wells frequently results in increasing the production of a neighboring well, as is illustrated in Figure 7. This well had an indicated ultimate recovery of 113,000 barrels. The first of November some nearby wells were beaned back to conserve gas, and as a result, the indicated ultimate recovery of this well was increased to 170,000 barrels. A few other cases of this kind are known, particularly in Ventura field, California.

Relation Between Rate of Decline and Gas-Oil Ratio

Recently, gas-oil ratio has received much attention, and is generally conceded to be an important measure of production efficiency. It would perhaps be expected that

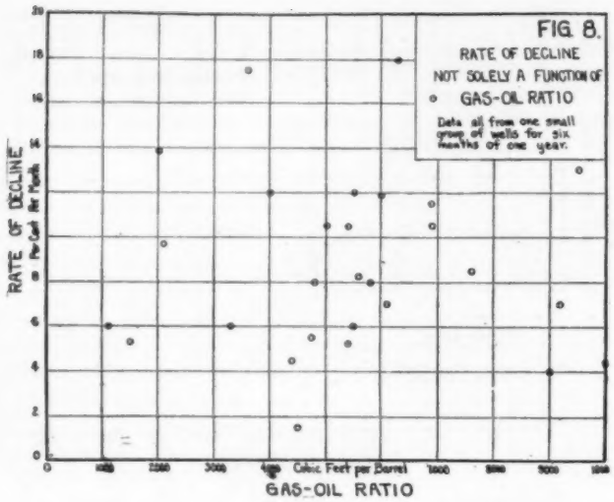
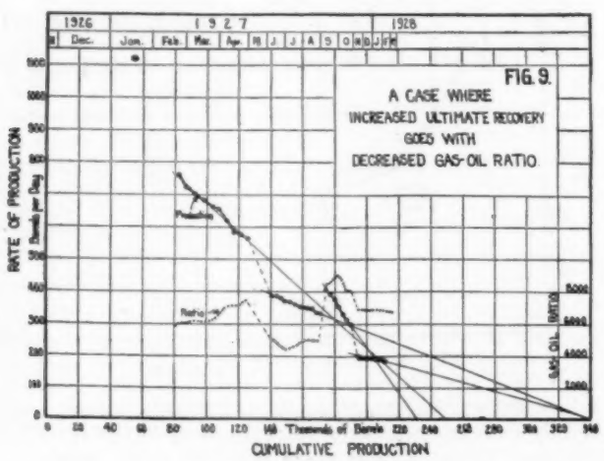


FIG. 8.
RATE OF DECLINE
NOT SOLELY A FUNCTION OF
GAS-OIL RATIO
Data all from one small group of wells for six months of one year.
RATE OF DECLINE
GAS-OIL RATIO

there would be some fixed relation between the gas-oil ratio of a well and its rate of decline. Figure 8 illustrates an unsuccessful attempt to establish such a general relation. On it are plotted the monthly percentage declines of a number of wells against the corresponding gas-oil ratios. Data are all from one small group of wells within a period of a year. The most obvious conclusion is that the points not only do not fall along any line, but do not even fall in a band, or any regular pattern. It has been found further that the points for certain wells on different months do not always show any consistent tendency, and also that the points for different wells on any one month do not establish any logical relation.

It must be concluded, therefore, that other variables are so numerous as to completely mask the effect of gas-oil ratio when investigated in this statistical manner. A well's rate of decline is dependent not only upon its gas-oil ratio, but also upon many other factors, previously outlined. While gas-oil ratio is only one of the many factors affecting recovery, it merits the attention it is receiving because it is one of the few factors over which the operator has any control.



That gas-oil ratio is at least one important factor affecting rate of decline can hardly be doubted after studying Figure 9. During the first period shown, the rate of decline was rapid, giving an indicated ultimate recovery of 250,000 barrels, and the gas-oil ratio was high and climbing. A pinch-back reduced the gas-oil ratio about 30 per cent. and increased the indicated recovery to 340,000 barrels. Later when the well was opened up again the gas-oil ratio increased 40 per cent., and the indicated recovery was reduced to 230,000 barrels. Another pinch-back again reduced the ratio and increased the recovery. In this field, flowing wells when undisturbed have a steadily rising ratio. It is important to bear this in mind while looking at Figure 9. Thus through four distinct periods, with three intervening changes, the relation was consistent,—increased ratio apparently caused reduction of ultimate recovery, and vice versa.

It would be unfair to omit saying that while numerous cases similar to that of Figure 9 might be cited, there are also some where this expected relation between ratio and rate of decline, is not apparent, or even contradictory. Swigart has given a rather complete discussion of this subject in his paper.

Conclusion

The most important thing that can be concluded from this research is that changes in the operation of wells affect such large changes in ultimate recovery that experimental changes should be made from time to time and the results carefully analyzed, so that the conditions leading to the greatest economic ultimate recovery can be known and maintained. Conditions that are best for one well are not necessarily best for a neighboring well, although experience may make possible intelligent guesses as to what will be best. Conditions that are best at one period in the life of a well may not be best later.

Rate-cumulative production charts form a convenient means of making the results of changes apparent.

The wisdom of drilling new wells on old leases should be considered in the light of the amount of production they are apt to rob from old wells. Analyzing with rate-cumulative curves the effect of new wells on old wells gives definite information upon which to base such estimates.

The relation between gas-oil ratio and ultimate recovery is not as simple as some have supposed, but the belief that gas-oil ratio should be kept as low as possible is not refuted or disputed.

Acknowledgments are made to those executives of the General Petroleum Corporation of California who made possible the preparation and presentation of this paper, to Mr. S. J. Dickey of the General Petroleum Corporation who first proposed the use of rate-cumulative curves, and to Mr. B. H. Robinson who assisted in developing the methods and conclusions herein presented.

Roxana Buys Chalk-Roberts Production Properties

Fort Worth.—A preliminary step towards the entrance of the Shell Pipe Line Company into the Chalk-Roberts field, Howard County, is seen in the purchase by Roxana Petroleum Corporation of a one-half interest and operating control of an 80-acre lease with two wells making about 50 barrels daily. Roxana paid $32,000 for the one-half interest in the lease held by Reeves-Apperman and Dorsey, and the remaining half is being retained by Vitek Oil Company, which is in receivership. The lease is located in the north half of the southeast quarter of Section 126 and proven for shallow production in several sands.

The Shell line extending from McCamey to the Mid-Continent passes within 10 miles of the Chalk-Roberts field and Roxana makes it a rule to run all its own oil in West Texas with special effort now being made to take on more oil for purchase.

More than 20,000 barrels of deep production daily in the Chalk-Roberts field is now shut in for lack of pipe line, but a complete shutdown probably will not continue many more months, because of the numerous lease and property sales made lately with two nearby refineries being considered.

Cosden & Company further entrenched its production position in the Roberts area within the past week through purchase of H. O. Wooten and associates' one-half interest in the Owen-Sloan Oil Company et al's 160-acre lease, with three wells rated good for 5000 barrels daily. Cosden is credited with having paid $600,000 for this interest, but Owen & Sloan will continue to operate.

Yates Proration Order Held Up By Commission

Fails to act after hearing at Austin at which two operators enter protest; Shell line offering to take more oil, making total 60,000 barrels

AUSTIN, TEXAS.—After hearing testimony of operators from the Yates field, Pecos County, here Monday, June 11, regarding the nature of production in Pecos County, the probabilities of underground waste if unrestricted drilling is begun, and the condition of the field at this time, the Texas Railroad Commission took the situation under advisement without indicating when a decision as to what action would be taken would be forthcoming. It is generally presumed, however, that steps toward putting the field on a similar proration basis as now exists in Winkler County will be taken immediately inasmuch as the voluntary proration agreement among operators in the Pecos district expires July 15.

Yates field operators virtually agreed to placing proration in the hands of the Texas Railroad Commission for six months, beginning July 1, at a meeting in Fort Worth May 31. The plan as outlined at that meeting called for an umpire to be selected by the advisory committee consisting of seven operators, to be the official representative of the commission. The hearing in Austin Monday was for the purpose of discussing the plan with operators and royalty owners before the issuance of an official order by the Railroad Commission.

Two Companies Oppose

All companies notified of the hearing were represented except The Savoy Oil Corporation, the Mazda Oil Company, the Red Bank Oil Company, Skelly Oil Company, and the Matador Oil Company.

Two companies, Transcontinental Oil Company and Oil Operator's Trust, the latter owning the Riverbed lease, appeared as opponents of proration under the direction of the Railroad Commission. Oil Operator's Trust did not want to be restricted in its output of crude and the Transcontinental representative stated that while his company had not considered the proposed plan as entirely satisfactory, the organization had expressed its willingness to join in the proration agreement but that the company was unwilling to join in the application to the commission to take jurisdiction. The Transcontinental's reason for this attitude was that it did not think it necessary or advisable for the commission to assume direction of proration in the Yates field.

Substance of the testimony favoring the commission's taking charge of the field was as follows:

The voluntary agreement cannot be maintained any longer and if the commission does not take over the field and issue a proration order, the field will be opened up to competitive drilling. As a result production will increase to such an extent that material waste will follow due to dissipation of gas pressure. The loss of gas as the expulsive agent will greatly cut down the ultimate recovery from the field. Water encroachment will mean trapping of vast quantities of oil in the lime which varies in porosity.

As the field now stands its potential is about 1,350,000 barrels daily from 190 wells. There are 15,000 proven acres and it is considered that the field is about 12 to 13 per cent. developed.

Regarding waste under the present proration agreement, it was shown that there is none either on the surface or underground, except possibly in the Riverbed lease which is not included in the agreement. This lease has two wells producing wide open. If the new plan is adopted these wells will be included.

Present pipe line capacity of the field is 51,500 barrels. There is no method of taking care of oil in excess of that amount except by storage which is in itself conducive to waste on account of evaporation of the lighter fractions, the fire hazard, and the danger to metal storage on account of the sulphur content of the oil.

Water Driven

Further testimony showed the average pressure of the wells is now from 720 to 740 pounds, that the field is water-driven, and that it is essential to hold back pressure under such a plan as the proposed one to equalize the "water table" and thereby maintain an equalized back pressure. Under such a plan the oil will be produced slowly and orderly with the maximum ultimate recovery.

Unrestricted drilling will in all probability result in uneven distribution of wells with a consequent pulling in of water on the drilled areas, leaving pocketed oil between the locations.

Unrestrained flow of gas involves the use of more gas than is necessary to produce the maximum amount of oil and is therefore a direct waste of gas.

More wells are drilled now than are produced and to open up the field would mean more drilling. With such a small pipe line outlet, much more storage would be required and operators would probably have to resort to

YATES FIELD LOCATIONS

New locations made within the past 10 days by the various operators in the Yates field to obtain production on undeveloped 100-acre units are listed below by leases:

Company—	Number Locations	Lease
The California Company	1	M. A. Smith "B"
Gulf Production Company	1	M. A. Smith
Gulf Production Company	6	I. G. Yates
Humble Oil & Refining Company	1	M. A. Smith "B"
Mazda Oil Corporation and Savoy Oil Co.	1	M. A. Smith
McMan Oil & Gas Company	2	M. A. Smith "B"
McMan and Marland Prod. Co.	1	I. G. Yates
Mid-Kansas-Transcontinental	1	Smith-Taylor
	5	I. G. Yates "A"
	1	I. G. Yates "B"
	1	I. G. Yates "C"
	2	I. G. Yates "D"
	1	I. G. Yates "F"
	1	I. G. Yates "G"
	1	I. G. Yates "H"
Roxana Petroleum Corporation	4	M. A. Smith "A"
Roxana Petroleum Corporation	1	M. A. Smith "D"
Total	31	

earthen storage as an emergency measure.

Those testifying for proration under direction of the Railroad Commission included:

W. A. Moncrief, chairman of the Yates Advisory Committee;

B. C. Clardy, present umpire of the field;

Ben C. Belt, geologist for the Gulf Production Company;

F. J. Adams, also of the Gulf.

Attorney General Claude Pollard sat through the hearing and joined in questioning the witnesses.

Judge D. C. Proctor, attorney for the Gulf Production Company, and H. H. Baker, attorney for Humble Oil and Refining Company, conducted the examination of witnesses for proponents of the plan.

It was proposed to increase the maximum amount of oil produced to 65,000 barrels daily instead of the 51,500 barrels which is the amount allowed now.

Advisory Committee

The advisory committee named at the Fort Worth meeting, May 31, included:

Warner Clark, The California Company;

F. J. Adams, Gulf Production Company;

E. J. Allen, Roxana Petroleum Corporation;

M. E. Wagner, Mid-Kansas Oil & Gas Company;

W. A. Moncrief, Marland Oil Company;

John R. Suman, Humble Oil & Refining Company;

W. L. Todd, Simms Oil Company.

New Drilling

A minimum of 51 new wells must be drilled promptly in the Yates field to place all the 100-acre units considered proven for oil on production, and owners of these undeveloped units have staked a total of 31 locations, according to a late check of field reports. Assuming that the maximum number of necessary wells will be drilled shortly, the operators will spend approximately $600,000 for casing, drilling expense, labor, and miscellaneous equipment required to handle the production after drilling is finished. Upon the completion of this campaign, which will require about 45 days, the field will have a total of approximately 260 producing wells, with a potential daily production of more than 1,500,000 barrels.

Protests against the Railroad Commission's proposal to assume charge of the enforcement of proration in the Yates field from within the ranks of the operators were not anticipated, and a number of the recently staked locations have been prepared to start drilling this week. The operators held a meeting in Fort Worth May 31 and were unanimously in favor of the commission issuing a set of rules discussed in detail at this particular meeting and taking charge of the proration enforcement July 1.

The joint properties of the Mid-Kansas Oil & Gas Company and the Transcontinental Oil Company are the largest units in the field, with the former concern in charge of operations. This partnership is confronted with the largest drilling campaign, and new locations for 13 tests have been staked, with machines rigging up on seven. These operators will have in excess of 90 wells when the new program is completed, with 70 wells now on production. Gulf Production Company is facing the second largest drilling campaign, with an intial program of seven tests, all of which are now rigging up to start drilling within a week or 10 days. Roxana Petroleum Corporation ranks third with five new locations staked. McMan Oil & Gas Company is starting two new tests in section 104, T. C. Ry survey, which was purchased from Pure Oil Company last February.

Voluntary proration in the Yates field has been in effect since October 2, 1927, at which time a potential production plan was introduced by the operators as a means of allotting the limited pipe line capacity available for the field at that time. Production was limited to 30,000 barrels daily when the first proration schedule went into effect. The potential production plan was shifted to a proven acreage plan on January 1, over the protest of the Simms Oil Company and a few others, and the latter method will have been in effect for six months at the close of this month. W. L. Todd, vice president of the Simms Oil Company, recommended on December 19, 1927, that the proration committee adopt a 100-acre unit plan, instead of the acreage plan for the period now nearing its close. The proration plan given a hearing at Austin Monday by the commission is virtually the same as that submitted by Todd six months ago, except that 75 per cent. of the daily market outlet available for the field is to be allotted on a basis of average potential production of each 100-acre unit and the remaining 25 per cent. will be distributed on a basis of the number of units, or volume of producing acreage held by each operator.

The four pipe line concerns running oil from the Yates field have been averaging 51,500 barrels daily for the past two and one-half months, with runs divided as follows:

Humble Pipe Line Company, 30,000 barrels.

Illinois Pipe Line Company, 12,000 barrels.

Gulf Pipe Line Company, 5000 barrels.

Shell Pipe Line Company, 4500 barrels.

The latter two lines have been handling approximately their allowed production. Shell has announced that it is ready to increase its runs from the field to 13,000 barrels daily effective June 15, and will purchase outside oil at the posted price of 60 cents per barrel, as is the case with Humble, to make up its quota. The Shell line extending from West Texas via Middle-Western refining centers to East Chicago has ample capacity to take on this additional oil, and if this line is permitted to increase its runs the output of the field will be automatically boosted to 60,000 barrels daily, thus giving each operator in the field a slight increase in production. Mid-Kansas and Transcontinental, the largest producers in the field, would be permitted to increase their production between 2800 and 2900 barrels daily under the present method of determining pipe line quotas, and others would be benefited in proportion.

No Change in Little River Curtailment Plan

Tulsa, Okla.—No changes were made in the plan for curtailment of the South Little River pool of the Greater Seminole area at the meeting of Seminole operators Tuesday afternoon. The new plan, which will be presented to the Corporation Commission June 15 for approval, permits the drilling of one well on each 20-acre tract and but two wells on the 40-acre lease, and prorates production from such leases to 800 barrels from each 20 acres. It is proposed that this restriction would continue until November 1.

The new plan supplants the old agreement, which has been renewed several times. Upon approval of this plan June 15 by the Corporation Commission, 75 or 80 wells will be started.

It was suggested and approved that wells drilling in the Wilcox sand area in Section 19-7-5 come under the jurisdiction of the general shut-down committee. This section is designated as the South Maud area, where Tom Slick, Inc., completed a 5000-barrel Wilcox sand producer at the end of last week and where Magnolia Petroleum Company was attended by success in deepening its west offset to Slick's producer, making the Magnolia well productive at the rate of 130 barrels per hour.

All of the operators present and interested in this area were agreeable to the curtailment plans. The shut-down committee will draw up an agreement similar to those in force in the past relative operations in other areas and present it to interested operators for approval.

Venezuela Curtailment

E. B. Reeser, president of the Barnsdall Oil Company and chairman of the committee on curtailment of Venezuelan oil production, reported that his committee had found operators interested in this field in a receptive mood relative the matter of curtailment of drilling and proration of production in

(Continued on page 46)

Commission Authorizes Hendrick Production Increase

Will increase 25,000 to 175,000 barrels daily on June 15; northeast extension well shows water encroachment and play is shifting east

By H. H. KING
Staff Representative

SAN ANGELO, Texas. — Allowable production in the Hendrick field will be increased 25,000 barrels to a daily maximum of 175,000 barrels at the beginning of the next proration period, June 15.

An order to this effect was issued during the past week by the Texas Railroad Commission upon recommendation of the field proration advisory committee headed by J. D. Collett.

Since proration has been in effect, actual production has been ranging from 5000 to 12,000 barrels below the daily quota, because of a number of 40-acre units being unable to produce their earned quota, and this condition will prevail more so with the higher production figure in effect.

The east side of the Hendrick field proper contributed an unusually large well and a disappointment within the past week. Roxana Petroleum Corporation's Grisham-Hunter 1-F, located in the southwest corner of Section 46, Block 26, blew in with an estimated flow of 15,000 barrels daily at 2675 feet, or 446 feet in the big lime. Roxana's No. 2 on this tract developed nine per cent. water while flowing 400 barrels fluid per hour at 2669 feet recently. Humble Oil & Refining Company's T. G. Hendrick 1-B, Section 39, made 200 barrels fluid per hour with about five per cent. oil at 2896 feet. The well had to be shut in pending erection of treating plant.

A bad dose of sulphur water appeared in the recent extension well on the northeast end of the Hendrick field, thus indicating that the producing area is about to pinch out in this direction. Murchison Oil Company & Cranfill Brothers Oil Company's Hendrick 1-H, located on a five-acre tract near the center of the northeast quarter of Section 33, Block 26, gauged 525 barrels of fluid, 30 per cent. water per hour on June 6 at a total depth of 2875 feet. This well was originally drilled into the big pay at 2850 feet May 18, with 445 feet of open hole, showing big gas production and about 2,000 barrels of oil. It was killed to cement a string of 6⅝-inch casing at 2650 feet, and when deepened to 2875 feet made clean oil for a few hours and then developed water trouble. It topped the lime at 2404 feet, with a surface elevation of 2852 feet.

New activity in the Hendrick field is now shifting to the east of the main field, and during the past week locations for immediate drilling were staked by Texon Oil & Land Company, Independent Oil & Gas Company and Murchison Oil Company et al. The latter is located in a 20-acre tract in the southwest quarter of Section 34, Block 26, or one-half mile east of production on the north end of the field. Texon's J. B. Walton 1 is located in the northeast quarter of Section 48, Block 26, and northeast of three gas wells on the east side of the field. Independent is starting two more tests on its Cowden 640-acre lease, covering all of Section 36, Block B-5.

The Hendrick field proration advisory committee was forced to call off a meeting scheduled for last Saturday for lack of a quorum, owing to various members being out of the State on business, or attending the A. P. I. meeting at Colorado Springs. The Committee has been requested by the Texas Railroad Commission to formulate a proration plan that will be equitable to lease owners in the Llano pool, North Winkler County, where Gibson & Johnson Interests recently completed the third producer for the area with a large volume of oil, gas and water at 3167 feet. This well is now shut in, but a fourth test is nearing the lime to the north near the New Mexico line. Roxana & Llano Oil Company are drilling this test in accordance with lease obligations, and at last report had reached 2220 feet.

New Mexico Side

Across the State line from the above test, Marland Production Company and The California Company's J. S. Eaves Permit 1, Section 19-26s-37e, Lea County, succeeded in lubricating 90,000,000 cubic feet of dry gas at 2968 feet, and was preparing to resume drilling with rotary early this week. This well is believed to hold the key to the oil producing situation in the south end of the county, although the Texas Production Company has a light oil producer with heavy gas several

HENDRICK FIELD OPERATIONS

The status of operations in the Hendrick field, West Texas district, at the close of last week is shown below by companies:

Company	Locations and Rigs	Drilling Tests	Tests in Big Lime	Completed Wells	Initial Produc'n	Average Produc'n
Amerada Petroleum Corp.	1	..	1	..	.....	.....
Atlantic Oil Prod. Co.	1	1	5	17	80,530	*9,580
Atlantic & Collett-O'Keefe	3	..	1	6	69,000	*9,695
V. T. Bolin & Co. et al	.	1	..	..	.....	.....
The California Company	.	..	..	8	7,550	*2,525
Cranfill & Reynolds, Inc., et al	.	1	1	5	53,825	*11,260
Eastland Oil Company	1	..	1	..	.....	.....
Gulf Production Company	2	10	1	13	66,070	*10,855
Humble Oil & Ref. Co.	2	3	8	21	84,720	*14,440
Independent Oil & Gas Co.	2	..	3	15	61,220	*4,530
Landreth Prod. & Roxana	5	10	4	11	48,265	*10,615
Magnolia Petroleum Co.	.	..	..	8	12,335	1,390
Marland Production Co.	1	2	2	2	16,800	*3,025
Murchison & Cranfill Bros.	3	..	1	6	12,675	*1,380
Murchison Oil Co. et al	1	..	..	..	.....	.....
Prairie Oil & Gas Co.	.	2	..	1	10,000	*755
Pure Oil Company	3	4	6	13	46,325	*14,505
Republic Production Co.	1	2	5	5	16,960	*9,240
Roxana Petroleum Corp.	2	2	6	21	98,080	*14,100
Sheldon & Burden	.	..	1	..	.....	.....
Skelly Oil Company	3	1	6	..	.....	.....
Southern-Dixie Oil Company	5	3	6	16	36,665	*9,095
Southern-R. A. Westbrook	9	10	13	17	45,850	*12,265
Texon Oil & Land Company	2	..	3	5	20,475	*4,325
Winkler Oil Prod. Corp.	.	1	..	..	.....	.....
Totals	47	53	74	190	783,205	143,580
Totals previous week	40	61	70	179	711,770	149,210

(*) Production partially pinched.

miles to the northeast on the Rhodes permit. J. B. Moncrief is in charge of field operations for Marland in New Mexico, with headquarters at Carlsbad, and reports that a coat of frost more than one inch thick accumulated on the two flow lines connected to the Eaves gasser while it was allowed to blow, because of the heavy pressure. These flow lines were extended several hundred feet from the rig. Marland et al's M. F. Sholes Permit 1, Section 19-25s-37e, and about six miles north of the Eaves gasser, developed a small flow of sweet gas at 2627 feet last week, and at last reports was drilling hard lime at 2710 feet. This test is unusually high on structure, having topped the lime at 2550 or 2584 feet. The same interests wildcat tests on the Siedeman permit, Section 4-25s-36e, Lea County, and Roberts permit in Section 20-23s-36e, were ordered abandoned in sulphur water at 4125 and 3949 feet, respectively.

Walter W. Donnelly et al's wildcat test on the J. S. Todd ranch, Section 26, Block "WX", GC&SF Survey, Crockett County, was bailing oil and water late last week at 1681 feet. This wildcat test is carrying water from above the oil horizon, and preparations are being made to set a string of five-inch casing on the sand, which was penetrated about six inches before deepening. Donnelly et al have a capped gasser on a wildcat block on the Shannon ranch in this general section of the county, and have three other wildcats started.

4400 Barrel Producer in Wilbarger County

Wichita Falls, Texas—The Waggoner ranch, in the south Vernon district, Wilbarger County, has lately taken the lead infurnishing the bulk of the new production developed in the North Texas district, and during the past week contributed a 4400 barrel producer. Waggoner Refining Company's W. T. Waggoner 1-H, located in the north corner of the northeast of the northwest quarter of section 24, block 4, H. & T. C. survey, is credited with having made this record flow from broken sand at 2277-97 and 2419-26 feet, and gauged 3200 barrels of pipe line oil during the second 24 hours. The well has since declined to about 1500 barrels daily, with 6 per cent. cut oil showing. The Texas Company's Waggoner 4-F, located in the same section, was completed several weeks ago in the 2400-foot pay making 1100 barrels natural during the first 12 hours, and a number of new locations have been started by nearby lease owners to drill while the flush production is on.

Tulsa.—Empire Pipe Line Company has begun work on reconditioning and repairing its 38-mile line from Winfield, Kansas, to Ponca City, Oklahoma. The line, which is 8-inch, is being uncovered, lifted, cleaned by machine, painted and re-laid.

Gray County Wildcat Makes 600 Barrels

Amarillo, Texas. — The Texas Company scored a 600-barrel producer from a semi-wildcat test on the J. E. Williams land, Section 6, Block 1, ACH&B survey, LeFors district, Gray County, late last week from pay at 2725 feet after passing up a heavy flow of gas at 2710 feet. This company has taken the lead in building up new production in Gray and Carson Counties within the past few months, and successful hits in the former county resulted in decision being made in May to extend the trunk line system of The Texas Pipe Line Company from the South Vernon field, North Texas district, to LeFors, where a connection will be made with its Panhandle gathering lines.

Lefors Petroleum Company's J. M. Shaw 2, which was reported last week as having registered an initial flow of 100 barrels of oil per hour and carried production to the edge of the town of Lefors, had settled to 60 barrels per hour, according to late reports, and may be drilled deeper.

Roxana Petroleum Corporation's E. Cockrell 1, Section 3, D&SE Survey, Block B-3, Hutchinson County, developed water trouble June 2 after having produced 604,000 barrels natural flow since its completion last August, and was doing about 1,200 barrels daily when the water appeared. The encroachment of water was rapid, and in less than one week the production dropped to 200 barrels of oil and 450 barrels of water daily.

Casper, Wyo.—The No. 2 well of the Spindletop Syndicate No. 1, southwest of Casper, is on the pump. On a 2½-hour test it made 60 barrels, but it will be pumped only while the No. 3 well is drilling. A re-check of the No. 1, Section 32-30n-81w, showed the casing to be set nine feet in the sand, and it will be lifted and repaired and then also placed on the pump. Oil is being pumped into the new 1000 barrel vapor pressure tank.

Pondera Dome Producing Area Being Extended

Great Falls, Mont. — The Pondera Dome field is becoming increasingly interesting with the steady extensions of its proved area. The Texas Pacific Coal & Oil Company's Hirshberg 1, northwest of the southwest of Section 14-27-4w, has an initial production of 200 barrels and seems to prove the geological theory of an eastern trend from the discovery well in the southeast of the southeast of Section 17-27-4w. The well is approximately 15 feet lower on the structure than the Continental Development Company's 100 barrel well a mile to the west, but differs from the Continental's well in that the formation which produces the big gas flow in the latter is an oil producer in the new completions. The oil was encountered at the extreme top of the Madison limestone, and the first 10 feet of this formation has produced only gas in the previous wells; in this well it produced oil.

Ohio Oil Company has purchased an 80-acre tract in the field, located generally between the Continental Development Company well and that of the Texas Pacific Coal & Oil Company. The land was that owned by George Hirshberg who stated that the contract stipulated that a well be started within 60 days.

The result of the Hirshberg 1 has greatly increased the expectations for the field's future. On June 9 it was one year since the discovery of the field and the completion of the first well. It was not until early this year that development was undertaken which led to the present position of the field.

Fix Rate From Osage and Oregon Basin

Cody, Wyo.—Approval of the 40 cent rate on crude petroleum shipments from Osage and Oregon Basin fields in Wyoming to points in Montana has been given by the Interstate Commerce Commission in an opinion filed with the Montana railroad commission. This opinion will have an important bearing on the marketing of crude from the Oregon Basin field.

The Producers & Refiners Corporation has 4,000,000 cubic feet of gas at 2900 feet in the top of the Embar sand in its Frisby 1 on Section 32-51-100. This is particularly interesting because of the comparatively shallow depth at which the Embar was encountered.

No new wells were completed in the field during the week. The test of the Texas-Montana Producing Company on Section 17-51-101 has a rig up and will be spudded in at once.

Drill 10 Wildcats

Great Falls, Mont.—Texas-Montana Production Company has announced that it will test 10 wildcat structures in Montana and Wyoming during the next two years. It will also drill several wells in proved territory; one of these will be in the Oregon Basin field in Wyoming, and another in Elk Basin also in Wyoming. The company's first wildcat is drilling on the Lodgegrass structure in Southern Montana, near the town of Littlehorn on the C. B. & Q. railroad. Total depth is 1125 feet.

400-Barrel Well

Tulsa.—With completion of another good well in the southeast corner of the southwest quarter of the southeast quarter of Section 15-11-11, Okfuskee County, Champlin Refining Company is slowly developing its proven acreage there. The new well made 400 barrels from the Wilcox sand at 3467-3493 feet.

Pittsburgh County Test Going to Wilcox

Tulsa. — Pattison-Phillips Drilling Company's McDuff 1, located in the southwest corner of the northeast quarter of the southeast quarter of Section 32-9n-16e, just north of the town of Canadian, in northern Pittsburgh County, is drilling ahead below 5300 feet, in what is thought to be the Viola lime. At 5289 feet the lime had been penetrated 150 feet. A gas sand with a yield of 3,000,000 feet was encountered from 4472 to 4525 feet. Present plans are to take the test to the Wilcox sand.

First Turkey Mountain Well Since 1923

Tulsa. — West Petroleum Company brought in a well in the Turkey Mountain district last week, good for 400 barrels daily. The well is located just south of the Tulsa city limits, across the Arkansas river, in the northwest corner of lot 8, Section 1-18-12. Turkey Mountain sand was topped at 2092 feet and at 2100 feet the well was flowing steadily.

This well is the first in the district since 1923.

Dividend Distributions Second Quarter

New York. — Dividend distributions to stockholders of the Standard Oil group of companies for the second quarter of 1928 will aggregate $55,832,769, a new high record for any similar period, according to a compilation made by Carl H. Pforzheimer & Company, specialists in Standard Oil securities. This total compares with distributions of $48,863,169 made in the first quarter of this year and $54,291,451 distributed in the second quarter last year. Only twice before have the quarterly dividends exceeded the amount for the current quarter, once in the first quarter of 1927, when operations were on a more profitable basis, and in the last quarter of that year when extra year-end payments increased the total.

The increase in payments for the current quarter were due chiefly to special dividends declared by National Transit and Southern Pipe Line companies amounting to $3,500,000 and $1,500,000 respectively. Semi-annual dividends and the payment made by the Vacuum Oil Company also helped increase the total. In the first quarter of 1928 Vacuum paid $1 a share on a capitalization og $62,809,550 of $25 par value. On April 30, a 100 per cent. stock dividend was declared, doubling the amount of stock on which a dividend of 75 cents a share was paid. This increased the dividend distribution of this company from $2,572,382 to $3,768,573.

All dividends for the second quarter of 1928 have been either paid or declared with the exception of Prairie Pipe Line Company. The current estimate is calculated on the basis that this company will declare a dividend of $3.50 a share on its stock, the same as in the first quarter.

The record of quarterly dividend distributions of the Standard Oil group of companies during the past few years follows:

	First Quarter	Second Quarter	
1928—	$48,863,169	$55,832,769	
1927—	55,873,413	54,291,615	
1926—	40,580,317	50,618,451	
1925—	34,355,618	41,905,728	
	Third Quarter	Fourth Quarter	Full Year
1927—	$47,728,440	$55,804,755	$213,698,223
1926—	46,427,278	62,685,548	200,327,594
1925—	35,140,584	42,104,169	153,506,099
1924—	34,712,810	40,000,286	150,388,555

Teapot Dome

Casper, Wyo.—Four miles of pipe line will be laid by Buckeye Wyoming Oil Company (formerly Teapot Consolidated Oil Company) from its well in the northeast of Section 2-38n-78w, northeast of Teapot Dome, to the Midwest Refining Company's line. It was at first planned to lay the line 1¼ miles across the Teapot Dome naval reserve, but the government refused permission unless the company should pay a royalty of 15 per cent to the government. Rather than meet this demand which seemed exorbitant, the decision to lay the line around the reserve was made. The well at present is shut down. It has a settled production of 50 barrels.

Another Freak Producer At Kevin-Sunburst

Great Falls, Mont.—Another freak producer was completed a week ago on the Barger farm in the Kevin-Sunburst field by the Baker-Barnhill-Corey interests in their No. 6 well on Section 9-34-1w. The well came in with an enormous production which a few hours later was minimized by a water intrusion. The pressure became so great that the control head gave way under the strain and the well ran wild for 30 hours, and was then brought under control with a production of more than 3000 barrels. The 24 storage tanks on the lease were quickly filled and the oil then was turned into a hastily constructed reservoir. The well also had the effect of greatly increasing the production of nearby wells, as was the case with the previous wells completed on this tract.

Gulf Building New 8-Inch Out of Oklahoma

Tulsa.—Gulf Pipe Line Company of Oklahoma will start work immediately on an 8-inch line from the Little River field to its pump station near McAlester. Out of McAlester south, the line will be looped increasing its capacity 10,000 barrels. Looping the line in Texas will be handled by the Gulf Pipe Line Company of Texas.

Expansion of Marland Royalty Company

Ponca City. — Stockholders of the Marland Employes Royalty Company will meet June 19 at Ponca City for the purpose of voting on a proposal to change the name of the company to Incorporated Oil Royalty Company, and to endorse an increase of capital stock from 500,000 to 1,000,000 shares. The increase in capital stock is proposed to make possible the absorption of the Southland Royalty Company and the New Royalty Company, both of which are controlled by the principal stockholders in the Marland Employes Company. Culmination of these plans will make the Incorporated Royalty Company a $15,000,000 concern.

Gas Properties Sold

Casper, Wyo. — Gas properties of New York Oil Company have again changed hands. The Foreman interests of Chicago, have sold the properties to the Northern Utilities Company, which was organized for the purpose. The sale was ratified at the annual meeting of the stockholders held in Casper June 4. C. A. Monroe, formerly vice-president of the Peoples Gas, Light & Coke Company of Chicago, is president of the Northern Utilities Company. The properties concerned include leases and producing gas wells in Poison Spider, Iron Mountain, South Casper Creek, Boone Dome, Sand Draw and Baxter Basin with distributing systems in Casper, Mills, Evansville, Glenrock, Rock Springs, Riverton, Hudson and Lander.

LaBarge

Kemmerer, Wyo.—Texas Production Company is starting six new wells in the LaBarge field on the old Calpet leases. Locations are as follows: No. 4K, Section 27-27-113, drilling at 247 feet; No. 2-B-2, Section 27-27-113, moving in machine; No. 2B, Section 3-26-113, drilling at 150 feet; No. 3E, Sestion 3-26-113, spudding; No. 6E, Section 3-26-113, rigging; No. 6F, Section 3-26-113, rigging up.

Most of the pipe is strung along the right-of-way of the Midwest Refining Company's new pipe line from the field to railhead at Opa. The telephone line is practically completed. The line will be ready for use by July 15 or August 1.

Different Explosives Required for Different Sands

Mid-Continent Engineers society hear technical talks on handling and effectiveness of nitro in oil production

By GEORGE REID
Staff Representative

TULSA.—High explosives as used for shooting wells were discussed at the monthly meeting of the Mid-Continent Section of the American Institute of Mining and Metallurgical Engineers, held at the Mayo Hotel, Thursday night, June 7. Papers were read by M. M. Kinley, of Tulsa, and C. O. Rison of the Indian Territory Illuminating Oil Company of Bartlesville.

Mr. Kinley brought out interesting observations on the limitations of explosives, indicating the lessened sensitiveness of nitroglycerine when gelatinized as against the high sensitiveness of the same explosive in fluid form. He told of tests with gelatin, a compound of nitroglycerine and gun cotton, where this substance was taken to a height of 750 feet and dropped, without any explosion resulting. This test was supplemented by dropping a quantity of nitroglycerine from 1200 feet, also without explosion. It was brought out that ordinary dynamite is limited in its use as an oil field explosive because it will not explode under certain high pressures. Nitroglycerine will explode under any pressure.

The speed of explosion was discussed, Mr. Kinley maintaining that solidified nitroglycerine was a faster explosive than the fluid which statement was contradicted by the following speaker, and the subsequent discussion following the talks was lively.

Different Sands, Different Explosives

Mr. Kinley recommended the study of oil field sands by the engineering department of the oil companies, giving thought to the effect of different explosives upon the different sands. In his discussion he stressed the fact that some sands react differently to the same explosives in like quantities, and gave examples indicating that the different explosives will have markedly different effects upon the same sand. Different explosives give varying results in a given field with the shooting in a similar sand, and erratic results are secured with an explosive working in a field where portions of the pay sand are hard or tight, or loose or soft. Sand conditions should be studied to determine whether a light or heavy shot is required. Perhaps series shooting is better than one single shot in a given pool, or stage shooting (varying depths) may give better results. Pipe tensions is another subject which might bear investigation, for it is known that strings of pipe have been shot in two or damaged when all the usual precautions were taken to prevent it. Certainly pipe under a strain is a condition that contributes to its being more easily damaged at the time of the shot.

In conclusion Mr. Kinley spoke of the hazard of shooting, denoting friction as the shooter's worst enemy. He stated that shooting work could be more safely conducted if the oil companies would demand safe practices by the shooting companies. In the matter of the use of bombs, he stated that they are essential, especially in deep well shooting. He stressed the fact that oil sands when studied from the viewpoint of the shooting work, will yield valuable information leading to the elimination of much wasteful practice now prevalent, as well as to the saving of much money by the oil companies. The study and correlation of experiences in shooting various sands in the many fields will give first hand information as to what type of explosive is best and in what quantity and how it should be exploded.

C. O. Rison followed with a very interesting discussion of the manufacture and use of high explosives.

Mr. Rison explained the physics and chemistry of nitroglycerine manufacture and discussed the mechanical method of its preparation. He covered the same steps in regard to the manufacture of solidified and gelatinized nitroglycerine. It was brought out that 10 quarts of nitro should weigh 32.9 pounds. It has a specific gravity of 1.6. The temperature of nitration in the nitro plant is 36 degrees Centigrade. The heat of the explosion of nitroglycerine was given as 3470 degrees Centigrade, or over twice the temperature of molten metal. Nitroglycerine freezes in two modifications, hardening at 2 degrees Centigrade and assuming crystalline form at 12 degrees Centigrade. It thaws more slowly than it freezes, and thawing is accomplished by placing the shells in warm water.

Glycerine, according to some authorities, will explode at 118 degrees Fahrenheit. It has been known to explode as the result of prolonged exposure to the direct rays of the sun. Therefore, it is kept cool and it is recommended that water jacketed shells be filled with cold water or even ice in summer months. Mr. Rison stated that water washing of the loaded shell was useless, and that only such solvents should be employed for cleaning the loaded shell as ether or alcohol. Small amounts of nitro clinging to the outside of the shell explode through friction as the shot descends through the pipe and act as detonators, setting off the entire shot, and sometimes with disastrous results. A clean shell is an essential precaution in handling nitroglycerine.

He stated that the main objection to the liquid nitro is the hazard. However, it was his opinion that 90 per cent. of the accidents occurring to shooters are not the result of any carelessness, the hitting of a stone in the road, the loss of a wheel, etc., but come about as the direct result of carelessness in the manufacture of the glycerine. Free acid in the finished product contributes the most trouble.

Ordinary glycerine and acid being the components of the explosive, which is a product of the nitration of glycerine, it is essential that all of the acid be removed by washing and neutralization, or the finished product is really dangerous. The reaction of nitration may proceed while the explosive is in cans. The free acid rising to the top of the can may corrode through the walls and let the glycerine slop over to the detonated in some manner, with the result being another fatal accident.

An interesting item appeared in the discussion of the shooting of gas wells, which is not common practice. The Poteau gas field, Oklahoma, is one of the very few gas producing areas in this country which has been consistently shot. Dynamite and gelatinized nitro has been used extensively in this gas field. The shooting of the wells has invariably resulted in much increase in production.

In conclusion Mr. Rison agreed with Mr. Kinley in that a real study of the sands is necessary to the betterment of the shooting work and that by coring to study texture, porosity, tightness, examination before and after shooting and correlation of data, would certainly be very helpful to the oil companies in the development of future fields. Glycerine, he stated, to be effective, must be destructive—and being both, it demands respect.

Bulk of New Oil in Gulf Coast Furnished by Louisiana

New wells at Sulphur and Kelso Bayou; Sweet Lake producer holds to 3500 barrels; Texas coast fields active; new depth at Hull

By JACK LOGAN
Staff Representative

HOUSTON. — Repeating its performance of the previous week, Southern Louisiana furnished a large part of the new oil of the Gulf Coast during the week that has just passed, all of that new production coming from three wells in two comparatively new fields, Sulphur, Calcasieu Parish, and Kelso Bayou, Cameron Parish. Those three wells had a combined initial production of 7000 barrels.

In the Texas division the Gulf Coast there were 13 completions, including 10 producers having a combined initial of 2051 barrels. Most of those wells were small pumpers, made by deepening or working over old wells; the principle exception being the Yount-Lee Oil Company's Gladys 18 at Spindle Top, a flowing well of 1000 barrels initial, at 3905 feet. One of the most interesting of the completions in the Texas Gulf Coast, however, was the Houston Production Company's Taylor 4 at Hull, which came in at 5075 feet as the deepest producing well of the field, the initial production being 75 barrels, flowing. The oil tested 37 degrees gravity. The gravity of other production at Hull is not that high. This well is in the northwest part of the field in the midst of numerous producers. It was formerly a producer at 3600 feet. Other wells in the vicinity range from 3500 to 4000 feet.

Sulphur Dome

The new production at Sulphur Dome, Louisiana, was from two wells of the Union Sulphur Company. Fee 725 came in flowing 2800 barrels of 22 gravity pipe line oil through a three-quarter-inch choke, with the bottom of the hole at 3425 feet. Location of this well is 140 feet north and 660 feet west of the southeast corner of the northwest of the northwest of Section 29-9s-10w. Fee 727 was completed at 4050 feet, and the initial production was 1800 barrels, flowing through a three-quarter-inch choke, and making pipe line oil testing 22 degrees gravity. Its location is 75 feet north and 1270 feet west of the southeast corner of the southeast of the northwest of Section 29.

Prior to the completion of these two wells, there were four producers in the field, having a total daily output of about 2200 barrels. All of the producers are on the west and southwest sides of the dome.

Unusual success has attended all the oil activity around this dome from its inception late in 1926 to now. After discontinuing its sulphur mining on the dome in 1924 the Union Sulphur Company decided eventually to test the flanks of the dome for oil and completed the discovery oil well, Fee 719, on December 24, 1926. The history of the oil operations up to now has been seven producers out of eight tests completed, Fee 720 having been the only failure.

Another test of the Union Sulphur Company is near the production level —Fee 726, which was drilling early this week below 3000 feet. The company also has derricks up for Fee 728, Fee 729 and Fee 730. Three rigs are being used in the field, and that number is not likely to be increased, since the Union Sulphur Company owns the entire dome in fee and will not be obliged to offset wells of competitors.

Kelso Bayou Dome

The new producer in the Kelso Bayou (or East Hackberry) field is the Yount-Lee Oil Company's State Land 11, which came in at 3945 feet making 2400 barrels of 23 gravity pipe line oil. Now, however, the well is making some water.

Including this new well, there are now eight producers in the field, and the average daily production is slightly under 4000 barrels. Three of the wells are owned jointly by the Calcasieu Oil Company, Magnolia Petroleum Company and the Union Sulphur Company. All of the other five are Yount-Lee wells, located in the bed of Kelso Bayou on a lease from the State. Yount-Lee Oil Company's State Land 9, which was completed about a week prior to the completion of State Land 11, is now making about 2000 barrels of fluid a day, of which 60 per cent. is water and 40 per cent. oil. It has been characteristic of most of the wells that have been drilled in the field to begin making a high percentage of water shortly after completion.

The Kelso Bayou field is now the scene of a great deal of drilling, the activity comprising seven operations of the Calcasieu Oil Company and its associates, the Union Sulphur Company and Magnolia Petroleum Company; two operations of the Yount-Lee Oil Company; and two of the Louisiana Land & Exploration Company, the latter being about one-half mile northeast of production, in Calcasieu Lake. In addition, several locations have been made by Yount-Lee Oil Company and by Calcasieu Oil Company and associates. The latter interests are due to complete several tests within a short time. Their Doiron 2, according to a report Monday, was drilling sand at 4609 feet; the Caldwell 3 was reaming to test at 4084 feet after drilling into salt at 4184 feet; the Watkins 4 was sidetracking at 2700 feet with the bottom of the hole at 3800 feet; Watkins 5 had set casing at 3986 feet; Watkins 6 was rigging up; Valery 1 had set 10-inch casing at 960 feet; Olevia 2 was rigging up; and Watkins 7 and Watkins 8 were locations. Yount-Lee Oil Company is driving piling for foundation for derrick for State Land 12, and is rigging up on the No. 13. Number 11 is farther down the bayou than any of the other producers; and the company has made locations for three new tests still farther down the stream; No. 14 is 140 feet from No. 11, around a bend in the bayou; No. 15 and No. 16 are down the bayou at intervals of 125 feet; No. 17, another new location, is 125 feet up the bayou from No. 13. The Louisiana Land & Exploration Company, which drilled into salt recently in Calcasieu Lake, about one-half mile northeast of the Kelso Bayou production, has set casing in a nearby new test, the Calcasieu Lake B-2, and is driving piling for the derrick for Calcasieu Lake A-2.

Sweet Lake

Pure Oil Company's Sweet Lake 5, in the Sweet Lake field, Cameron Parish, completed a short time ago at 5718 feet, is flowing steadily, and although it is making 35 per cent. water, the average output of net oil is over 3500 barrels. During the 12 days after completion, the well produced 43,104 barrels net oil, a daily average of 3592 barrels. Pure's Sweet Lake 4, the deepest producer in the Gulf Coast, at 5924 feet, is flowing 100 barrels a day. Sweet Lake 3 is drilling at 6030 feet; it was formerly a producer at 5897 feet. Sweet Lake 2 is waiting on a rig to deepen.

Sorrento Dome

The new well of the Gulf Refining Company of Louisiana at Sorrento Dome, Ascension Parish, east of the Mississippi River, the United Lands

Company 7, together with the other two wells there, No. 4 and No. 6, is shut in because of high water, due to heavy rains in the vicinity recently.

Outside of the new wells at Sulphur Dome and at Kelso Bayou, there were only three completions in South Louisiana; including the Jefferson Oil & Development Company's Jefferson Island 2, a wildcat in Iberia Parish, abandoned at 5948 feet; Vacuum-Gulf's Lock-Moore 5 at Lockport, abandoned at 5375 feet; and the Jennings Petroleum Company's S. F. S. 2 at Evangeline, which tested salt water at 1875 feet and is shut down.

Coastal Texas

In the Texas Gulf Coast recently started activity includes drilling at Lost Lake, Chambers County, and at Moss Bluff, Liberty County, at each of which places salt domes have been outlined by geophysical methods. At Lost Lake, which is controlled by Pure Oil Company, the first test to be drilled, Lost River 1, is standing at 3819 feet; at 3670 feet it bailed some oil. Pure's Old River 1 there has set surface casing at 265 feet, and Lost Lake 1 is drilling at 1605 feet. Trinity River 1, Lost River Lake 1 and Cut-Off Bayou 1 are derricks.

At Moss Bluff, where various tests were drilled by the Union Sulphur Company, proving the existence of a dome but failing to obtain production, the Humble Oil & Refining Company's Sterling 1 is drilling below 750 feet; while the Sun Oil Company's Kyle 1 is at the same depth in gumbo.

Another comparatively new area of the Texas Gulf Coast which is nearing an interesting stage is the Sugarland Dome, Fort Bend County, where the Humble Oil & Refining Company is putting down three tests in the vicinity of its discovery well there. Brazos Farm 1, first offset to the discovery well, Sugarland Industries 1, is reaming at 2915 feet. The depth of the field's producer is 3536 feet. Humble's Sugarland Industries 2, second new test, is drilling gumbo at 1895 feet; and the Deathridge 1 is rigging up.

In the North Dayton field, Liberty County, the Harrison Oil Company is drilling a test which should prove interesting, the Quintette 3. Last summer this company made a producer of its Quintette 1, the first deep producer of the field, completing it at 4135 feet for 400 barrels initial. The well is still flowing. The next test, Quintette 2, was a failure. Quintette 3 is now drilling gumbo at 3220 feet. The shallow production at North Dayton was from wells ranging from 600 to 800 feet in depth; a few of them are still producing.

Older Fields

In the Humble field The Texas Company is drilling House 21 on the north side of the San Jacinto River. Only a few producers have been drilled in the extension of the field on that side of the river, the latest one, The Texas Company's House 20 proving to be one of the deepest producers ever drilled in the field. Its depth was 3704 feet. It had an initial flow of 2800 barrels when completed last fall, but did not produce long. The new test is drilling at 2355 feet.

Among the tests which were completed in the proven fields of the Texas Gulf Coast the past week the largest, outside of the 1000-barrel Yount-Lee well at Spindle Top was Sinclair Oil & Gas Company's Hager 3 at Orange, which had an initial flow of 700 barrels at 3520 feet. Gulf Production Company's Chesson 8 in that field will be abandoned at 4430 feet. Both of these Orange tests were old wells deepened.

The Sun Oil Company's Price 4 at Spindle Top, also a workover, was completed as a 25-barrel pumper at 5640 feet.

At Blue Ridge Watts Brothers' Blakely 4 at 2290 feet was swabbing 150 barrels, and their Scott 2 drilled to salt and is shut down at 3995 feet.

There were two completions of deepened wells at Goose Creek. Gulf Production Company's Prather-Drillers Fee 10 pumped 150 barrels fluid including 22 barrels of oil; and Gulf Coast Oil Corporation's Gaillard 5 was put on the pump and began producing 120 barrels of fluid, of which 35 barrels was oil.

Paraffine Oil Company's Paraffine 73 at Batson is a six-barrel pumper at 385 feet. At Sour Lake the Humphreys Corporation's Bashara 1-G, after deepening, is a 25-barrel pumper at 4105 feet; and the Lakeview Oil Company's Hardin County 55 is pumping 15 barrels a day at 1355 feet.

Scott Heads Engineering Department of Humble

Houston—Following the resignation of R. G. Hamaker as chief engineer, the engineering department of the Humble Oil & Refining Company has been re-organized. W. W. Scott, formerly chief production engineer for the Pure Oil Company, in the Oklahoma and Texas division, with headquarters in Tulsa, is now chief petroleum engineer for the Humble. S. W. Oberg, formerly division engineer, Gulf Coast division of the Humble Company, has been made chief civil engineer of the production department, and F. A. Watts, formerly assistant to Mr. Hamaker at Houston, is now chief engineer of the sales department; the sales and production divisions of the engineering department having been segregated. Following the re-organization, harbor and station layouts, formerly in charge of Mr. Hamaker's department, will be handled by J. C. Robertson, pipe line engineer.

Mr. Scott, the new chief petroleum engineer, became associated with the Pure Oil Company in September, 1925. Prior to that he was for a while superintendent of the United States Bureau of Mines petroleum experiment station at Bartlesville. He was graduated from Leeland Stanford Junior University in 1916 in geology and mining engineering, and after that time was connected with various oil companies as engineer. For two years after his graduation he was employed by the Shell Company of California, after which he resigned to join the Hamilton Oil Corporation of Houston. While with that company he was in charge of drilling operations in Texas and Louisiana. He entered the service of the United States Bureau of Mines in 1921, and was later appointed deputy supervisor of the oil and gas operations on leased public lands in Wyoming and Montana. He was employed in 1924 by the Anglo-Saxon Petroleum Company of London for duty at Miri, Sarawak, Boreno, as advisory engineer to the management on drilling and production problems.

Mr. Oberg was graduated from Leeland Stanford University in 1917; was in the United States army from 1917 to 1919; was engineer United States Reclamation from January to October, 1919, at which time he joined the Humble Oil & Refining Company as a surveyor at Ranger, Texas. He has been with the company since then, serving as division engineer, Cisco, Texas, from 1920 to 1922, and as division engineer of the Gulf Coast division from 1922 until his recent appointment as chief civil engineer of the production department.

Mr. Watts was graduated from Leeland Stanford University in 1919, after which he served for a short time as engineer for the Union Oil Company of California. In August, 1919, he joined the Humble Oil & Refining Company as assistant division engineer, Cisco division, and in 1921 he became assistant chief engineer at Houston, serving in that capacity until his appointment as chief engineer of the sales department.

Mr. Hamaker, former chief engineer of the Humble, has joined the Reed Roller Bit Company, Houston, as director in charge of research, to be effective July 1.

Adrian Moore, Houston, vice-president and general manager of the Rycade Oil Corporation, is attending the American Petroleum Institute meetings in Colorado Springs.

R. E. Welsh, formerly of the operating department of the Humble Oil & Refining Company, Houston, has been transferred to the geological department of that company as head of the mapping division.

George A. Donnelly, vice-president of the Eastland Oil Company, returned to headquarters at Fort Worth early this week after making a trip to California for a heavy type of rotary rig to be used in drilling the company's test in the Hendrick field, West Texas district, through the big gas horizon.

Nowata Repressuring Plant Still Good After 10 Years

After 25 years of profitable operation there is every indication that Ida J. Scudder lease may be many years older before abandoned

By GEORGE REID
Staff Representative

REPRESSURING, a present day poular method of producing oil from shallow sands; has its traditions. Thirty-five or forty years ago in the older fields of the East, producers began the work of injection gas and air under pressure into oil sand beds, and secured the resultant increase in gas and oil production.

One of the oldest repressuring ventures in Oklahoma has been in operation for the past ten years, and even though it is hoary with age when compared to the ever increasing number of new installations in Oklahoma, Kansas and Texas, investigation indicates that 1918 was not the beginning of such work in the shallow fields of Oklahoma, for some producers where repressuring in 1915, and for fear of successful contradiction the writer will not state that even that year marked the beginning of the practice. The lease visited recently in north half of the southwest quarter of Section 33, 25 N, 17E, shown on the maps as the Ida J. Scudder lease, Nowata district, near Allewe, Oklahoma, has been producing under pressuring methods since early in 1918.

This 80-acre tract was leased in 1902 and produced in 1903. The Bartlesville sand is found at 400 to 405 feet and the bottom of the sand is found at 435 to 440 feet. It is surrounded by producing leases, all of which are now under air pressure. The present owner of the property under discussion is O. K. Eysenbach, Tulsa. N. J. Wise, superintends the property and has been on this job looking after the production for the past 16 years, and due to his long contract with the repressuring system is familiar with each of the wells and their eccentricities, and feels, no doubt, that he has raised them all to their present ripe old age.

When these Bartlesville sand wells were first drilled in their flush production ranged from 400 to 500 barrels, which rapidly decreased to around 50 barrels. After approximately 15 years of pumping, production for the 80 acres dropped to a daily average of 35 barrels.

Production Doubled

In 1918 it was decided to take the gas production from the field and pump it into the sand. Gas from the wells was sold to a nearby natural gasoline plant, and sufficient quantity was arranged for to be returned to the lease for insertion into the sand bed. After two or three months of repressurring the lease production increased from 35 barrels to 70 barrels daily.

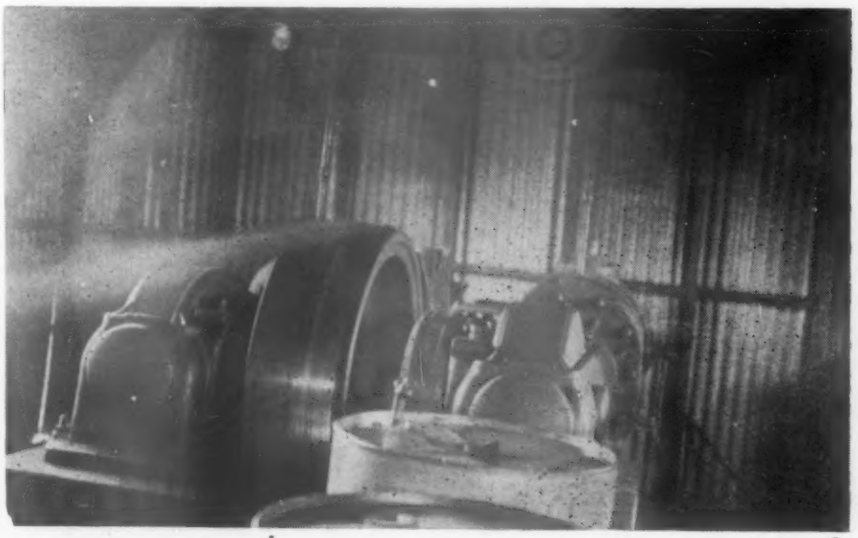
The first key well was drilled in the center of the west forty acres in 1918, to be followed later with two more wells drilled in the center of the other forty acres — these three to be followed still later with two more inside wells drilled for the purpose of gas insertion. All of these wells being centrally located the major portion of the benefits of repressuring was derived by the operating company. Surrounding leases were effected gradually and benefited by the pressure.

Just how long the production held up to 70 barrels daily is not known, but for the past several years, and after a gradual decline in production, the lease has averaged 40 barrels daily. In other words, after ten years of production, it has not yet decreased to the 35 barrel figure at which repressuring was started. Since settling down to forty barrels daily several years ago, the property has not shown any further tendency to decline. Neither did the superintendent feel inclined to prophecy regarding future production, and while he hesitated the writer formed the opinion from the general appearance of the "boss'" homestead and lease equipment, that he intended remaining there on the job for several years to come. The point, however, is that repressuring is to be looked upon as something more permanent or lasting than a number of operators seem to believe. This property has produced for 25 years, 10 years under pressure, and there is little reason to believe that it will not still be producing ten years hence.

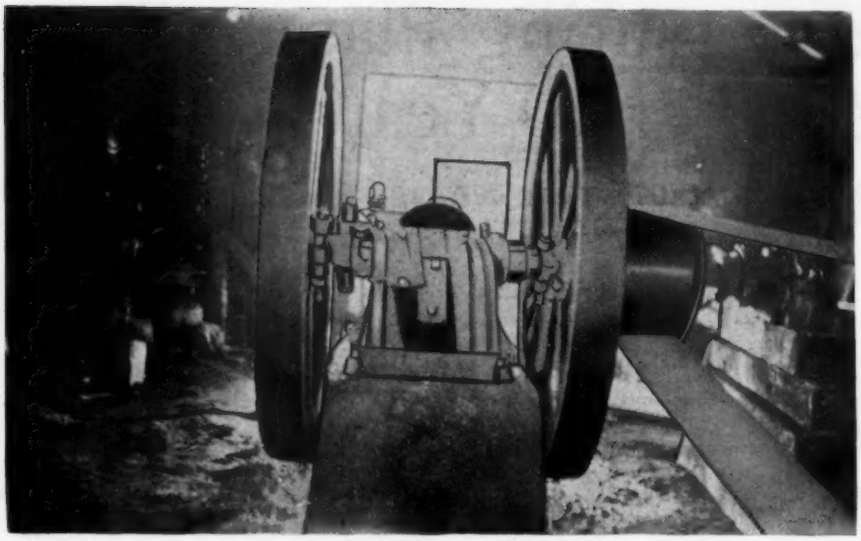
The original compression equipment, in use at times for repressuring, and for collection of natural gas from the wells, is still in service. An Ingersoll-Rand Imperial type 10, 14x10x14 inches, is still handling natural gas. It is belt-driven by a Superior gas engine, 25 horsepower, lately equipped with a Wico ignitor. The machinery is housed in a sheet metal building located in about the center of the lease. Gas is scrubbed before it enters the compressor, and again as it leaves the plant.

Effect of Air Competition

The surrounding leases were put under the repressuring system during 1926, and as all of these properties are pressured with compressed air, it became necessary for the owners of the Scudder lease to make some changes in their system. Instead of inserting the natural gas under a pressure of 35 pounds in their centrally located key wells, they converted all but two of them into producers, and selected six



Compressor equipment used for the past 10 years in connection with operation of 80-acre lease repressured with natural gas at 35 pounds.



Olin Gas Engine, belt drive power unit in central power pumping 20 wells on Scudder lease, which has been in service for 25 years.

outside wells on the four sides of the lease for pressure wells. Since the other operators were forcing compressed air into the sand under surrounding properties there developed some difficulty in securing good gas for fuel for the Superior engine. This was overcome by taking the gas production from two centrally located inside wells, and using it for fuel.

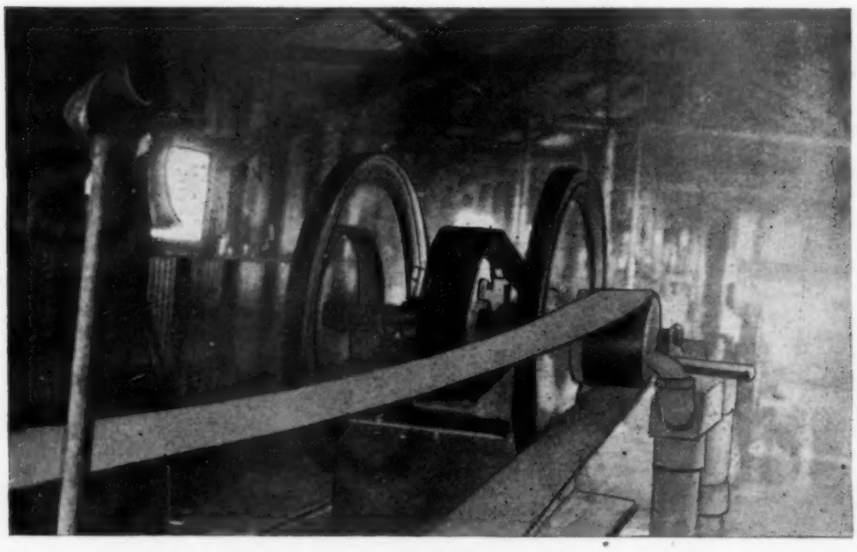
In addition to the present production of 40 barrels of oil per day, it is said that the lease is still producing around 100,000 cubic feet of gas, which is sold to the nearby gasoline plant. It is estimated that 20,000 cubic feet of residue gas is returned to the sand for recycling. Another profit feature was that of increase of crude oil gravity—for the circulation of gas effected a two-degree increase, bringing the oil back to approximately 35 degrees A. P. I. Further than this, the repressuring venture has not been conducive to increase of water troubles or B. S. content. The 20 wells producing 40 barrels also produce around four or five barrels of water—which is exceedingly low considering the age of the property, etc. Basic sediment content of the oil produced has never shown any indication of increasing to the point where the lease would not yield pipe line oil.

The lease is now producing from 20 wells, which averages one producing well to each four acres. There are eight key wells in the system, conveying gas to the 30 to 35 foot sand body under a 35-pound pressure.

Production from the 20 wells is handled by one central power house, and crude is transported to one battery of field tanks. The central power is equipped with an Olin 20-horsepower gas engine and an A. B. C. power unit. The power is of the type where large gears are belt driven from the engine, and power imparted to master wheel by arm drive or shaft. There are but four hooks used on the master wheel, with as many as seven wells pumping off of a single shackle rod line. The wells are pumped every morning for about two and one-half hours, which is sufficient time to lift the present lease production of 40 barrels.

In spite of its age, constant care of the equipment and of the lease in general, leaves it in good repair and little difficulty is experienced in its operation. Producing about 1,200 barrels of oil per month and around 3,000,000 cubic feet of gas, the average monthly cost of operating for the property for the past few years has ranged between $200 and $250. These figures give some indication of the profit to be derived from long time operation under repressuring methods.

In addition to its age, the lease is of interest in that it indicates that repressuring with natural gas and compressed air, is not a temporary venture, and that such systems may not only be installed and operated economically, but they may well be built for permanency. After 25 years of profitable operation there is every indication that the Ida J. Scudder lease may be some years older before it joins the lists of abandoned properties.



Gas Engine used since 1918 in daily service driving compressor equipment in gas drive work, Nowata field.

Government Openings for Mineral Economists

Washington. — The United States Civil Service Commission announces open competitive examinations for the positions of associate mineral economist, at a salary of $3,000 and assistant mineral economist, at $2,400.

Applications must be on file with the Civil Service Commission at Washington, D. C., not later than July 11.

The examinations are to fill vacancies in the Bureau of Mines, Department of Commerce, for duty in Washington or in the field, and in positions requiring similar qualifications.

The entrance salaries for these positions in Washington are as indicated above. After the probationary period required by the civil service act and rules advancement in pay depends upon individual efficiency, increased usefulness, and the occurrence of vacancies in higher positions. For appointment to the field service the salaries will be approximately the same.

A separate register of eligibles in each grade will be established for each of the following optional branches: coal, metals, petroleum, non-metallic, and general economics of minerals.

Competitors will not be required to report for examination at any place, but will be rated on their education and experience; and publications, thesis, or discussion, to be filed with the application.

Full information may be obtained from the United States Civil Service Commission at Washington or the secretary of the United States civil service board of examiners at the post office or custom house in any city.

Greater Seminole Reaches New Low Production Mark

Interest now centered around Maud-St. Louis area; five completions add 11,871 barrels new oil during week

TULSA.—Five producers contributed 11,871 barrels of new flush oil to Seminole's total during the past week. Interest in this area centers around the St. Louis-Maud area where T. B. Slick has drilled in Harper 1 in the Wilcox sand, good for 4000 barrels daily. Gypsy Oil Company is also attracting attention in the drilling of its Mekasukey 1, a semi-wildcat on the Mission land in Section 5-8-6.

Tom Slick's Harper 1, northeast corner of the northeast of the southeast of Section 19-7n-5e, flowed 3821 barrels on test in 24 hours, and late reports give the flow at 4290 barrels. Production is from the Wilcox sand, 4105 to 4122 feet, the oil being 43.2 gravity at 86 degrees.

In the Maud-St. Louis area, Magnolia Petroleum Company's Hembree 1, northwest of the southeast of Section 19-7-5, flowed 142 barrels during 24 hours and air has been taken off and the well is being rigged to drill deeper. Gypsy Oil Company's No. 1 in the southeast of the northwest of Section 19-7-5, topped the Hunton at 3923 feet and is drilling at 3958 feet with no show of oil or gas. Magnolia has made location and is moving in material for No. 3 in the southeast of the northeast of Section 19-7-5. Magnolia's No. 1 in the southwest of the northwest of Section 12-7-4, topped chirt at 3952 feet, reached the Hunton at 3955 feet and gauged one million feet of wet gas at the first depth. The same company's G. W. Fike 1, northwest of the southwest of the southeast of Section 20-7-5, got a small show of oil in the Hunton at 4000 feet and topped the Sylvan at 4025 feet. It is drilling ahead at 4035 feet.

Westheimer and Daube's No. 1 in Section 23-7-4 found the shale break at 3965-68 feet, topped the Hunton at 3968; the hole filled with oil and made one flow of 60 barrels.

McCullock and Blackwell Oil & Gas Company's Smith 1, southwest corner of the northeast of Section 25-7-4, got the Simpson sand at 4185-92 feet and made 550 barrels daily. The same operators in Bruno 1, southwest corner of the northeast of Section 25-7-4, an offset to Smith 1, after difficulty in shutting off water, succeeded in plugging and swabbed 382 barrels during the last 24 hours. The operators are setting compressors for flowing these two wells with air.

Mission Land Well

Gypsy Oil Company's Mekasukey 1, a deepening project on the Mission land in the southwest corner of Section 5-8n-6e, appears to be reaching the Wilcox sand in this rather removed location and may prove the existence of an important field. All of the lower formations have been running high, and this company's Dosar 1, southeast corner of the northeast of Section 7-8-6, which is a wildcat, producing under a restricted flow at 100 barrels per day. The latter is a mile south of the Mekasukey test. Thursday a hole full of oil was reported with the well drilling at 4315 feet and thought to be in the Wilcox sand. It found the Viola at 4190 feet. Later it swabbed 225 barrels in 16 hours. Other operations starting in this district include Gypsy Oil Company's Dosar 1, Section 1-8-5, building rig; Baby 1, southwest corner of the northeast of Section 6-8-6, setting surface casing at 70 feet; Barkus 1, Section 6-8-6, rigging up. Under the curtailment program, the new well will be pinched to 100 barrels per day.

Other Pools

At St. Louis, Independent Oil & Gas Company's Wallace 2, northeast corner of the southwest of the northwest of Section 14-7-4, topped the Hunton at 3785 feet, and flowed 265 and 345 barrels in two tests. Gypsy Oil Company's No. 2, Section 23-7-4, made 1470 barrels in 24 hours, and No. 2 flowed 953 barrels during the same period.

At Bowlegs, Pure Oil Company's Strothers 5, northwest corner of the southeast of the northwest of Section 10-8-6, got the Wilcox at 4071-4165 feet and made 215 barrels in 10 hours.

Magnolia Petroleum Company's Harjo 1, northeast corner of Section 14-7-6, Little River, topped the Viola at 4130 feet and is reported drilling at 4190 feet with 400 feet of oil in the hole.

At Searight, Sunray Oil Company's No. 1, Section 4-9-6, was drilling at 4420 feet with 1200 feet of water in the hole.

Skelly Oil Company and Atlantic Oil Producing Company, in their test in Section 6-9-6, between Earlsboro and Searight, gauged 3875 barrels one day during the latter part of last week.

Gypsy Oil Company reported a showing of oil in Stidham 1, in Section 24-9-5, in the Earlsboro sand from 3960-3703 feet, and the well is being drilled ahead at 3886 feet.

Gypsy Oil Company and Tom Slick have 1600 feet of salt water in their Davis 1, Section 36-9-6, an extension of the Seminole City pool. The Wilcox sand was found at 4326 to 4402 feet. Total depth is 4462 feet.

Sinclair Oil & Gas Company shot Taylor 3, Section 10-8-6, Bowlegs pool, with 24 quarts of nitro, and the well produced 150 barrels in 18 hours. Total depth is 4415 feet in the Wilcox. Indian Territory Illuminating Oil Company's Lizzie 1, Section 11-8-6, Bowlegs, was drilled to the Wilcox at 4204 feet and produced 317 barrels on test.

In the Allen County field, Sunray Oil Company's Cully 6, northeast corner of the southwest of the northeast of Section 18-5-8, topped the pay at 2580 feet and was drilled in about four feet to produce 425 barrels. Later the

SEMINOLE GAUGE, DAILY, FOR PAST WEEK

	June 9		June 8		June 7		June 6		June 5		June 4	
	Wells	Bbls.	Wells	Bbls.	Wells	Bbls.	Wells	Bbls.	Wells	Bbls.	Wells	Bbls.
Little River	103	45,443	130	44,427	130	44,204	130	44,175	130	43,950	130	44,902
Maud	2	.....	2	350	2	.....	2	.....	2	.....	2	.....
Bowlegs	317	61,342	317	62,227	317	61,394	317	63,249	317	63,332	317	63,271
Earlsboro	276	88,251	276	89,625	278	90,673	278	89,541	278	89,809	278	92,141
Seminole	302	51,001	302	51,797	302	52,917	302	53,502	302	52,061	302	52,549
Searight	69	14,186	69	14,648	69	14,816	69	14,975	69	14,501	69	14,919
Total	1,096	260,223	1,096	263,074	1,098	264,004	1,098	265,445	1,098	263,653	1,098	267,782

well was deepened to 2662 feet and gave a gas yield estimated at 75 million feet, with very little oil. Sunray's Cully 7, same lease, was producing oil at the rate of 400 barrels, and was deepened to 2625 feet with similar results—25 million gas and little oil.

Seminole Gauge

Seminole fields established a new log gauge as reported Sunday, with a total production of 259,025 barrels from the area. During the past week production has remained fairly level, ranging from 263,000 to a high of 267,782 barrels. The accompanying tabulation shows the gauge for the week.

Survey of Operations

A survey of operations in the Greater Seminole area at the close of last week indicates that 1096 wells are contributing the production for the district, averaging approximately 263,000 barrels daily. Although the comparative statement shows an increase of nine operations over the previous week, there are but 83 wells under way and this figure includes 11 which are still stakes driven for locations. In the entire area there are but 56 actual drilling wells.

Bowlegs leads in activity, having 32 operations under way, and 16 of these are below 3700 feet. Earlsboro has 30 operations with but two of these below the standardized depth of 3700 feet. Little River has 13 operations under way with six nearing completion depth. Searight has five operations and one of these standardized. The Seminole City pool has but three operations drilling, two nearing completion and one drilling at less than 2000 feet.

A tabular check of the work under way in the Greater Seminole area follows:

Pool—	Loc.	Rigs	Inactive *	Less than 2000 ft.	2000 to 3099 ft.	3100 to 3700 ft.	Below 3700 ft.	Total Operations
Little River	1	5	1	..	..	1	6	13
Seminole City	..	..	..	1	..	..	2	3
Searight	1	1	..	2	..	..	1	5
Bowlegs	2	3	3	3	4	4	16	32
Earlsboro	7	7	5	6	5	3	2	30
Totals	11	16	9	12	9	8	27	83

* Inactive operations are included in grand total.

A comparative statement of the entire field showing the number of producing wells with the average gauge this week and the manner of producing the wells, dead wells and salt water conditions, etc., indicates that 42 per cent., or 456 wells, are now running salt water with oil. The water encroachment is effective in all of the pools, with 173 in the Earlsboro sector, 121 in the Seminole City pool, 92 at Bowlegs, 38 at Little River and 32 at Searight.

Of the total of 1096 wells producing, only 63 are flowing naturally. Thirty-six per cent. of the wells, or 394, are being produced by either air or gas lift. Air-gas lift wells are distributed as follows: Bowlegs, 162; Earlsboro, 79; Little River, 67; Seminole, 63; Searight, 23.

Practically half of the area's wells are "on the beam," there being 520 pumping wells according to the latest survey. Seminole City has 212 pumpers, Earlsboro 125, Bowlegs 115, Little River 31 and Searight 27. Wells reported as permanently off production and classified as "dead" number 68 for the group of pools. Earlsboro is credited with 28 dead wells, Bowlegs with 22, Seminole City 12, Little River 5 and Searight 1.

The tabular compilation of field conditions in the Greater Seminole area follows:

Pool—	Wells	Air gas lift	Pump	Flow	Swab.	"Dead"	Salt water
Little River	130	67	41	17	10	5	38
Seminole City	302	63	212	6	9	12	121
Searight	69	23	27	18	..	1	32
Bowlegs	317	162	115	1	17	22	92
Earlsboro	278	79	125	21	25	28	173
Totals	1,096	394	520	63	61	68	456

Logan County

Fourteen wells in Logan County's two fields produced 5707 barrels daily during the past week. The Roxana pool in section 19-12, with five producers, averaged 4669 barrels, and the Lovell pool in section 18-1w, averaged 1038 barrels from nine wells.

Roxana Petroleum Corporation secured a small showing at 5695 feet in its Ross B-1, in section 19-19-4w, which is a northwest diagonal offset to the same company's Ross 1, which is a 600-barrel producer.

Roxana's Rouse A-1, in the southwest corner of section 19-19-4w, had no show in lime to 6015 feet, but topped the Wilcox at 6025 feet with a show of gas at 6030 feet and 1500 feet of oil was reported in the hole Saturday morning.

Consolidated Oil Company, drilling Guyer 1, in the southeast of the southwest of section 33-18-3w, Logan County wildcat, reported a showing of gas and a hole full of water at 3913 to 3940 feet. The hole was bottomed at 3945 feet in shale with 5 3/16-inch casing parted five joints off bottom.

Champlin Oil & Refining Company, drilling in Musgrove 1, in section 8-19-4w, has a showing of oil at 5905 feet and is preparing to test. Sinclair Oil & Gas Company and Margay Oil Company's Murphy 1, in the southwest corner of the southwest of the southeast of section 17-19-4w, is making hole at 3826 feet. Sinclair's Webber 1, in the southeast of the southeast of section 18-19-4w, is drilling at 4800 feet. Barnsdall Oil Corporation, in its De Jarnett 1, northeast corner of the northeast of the northwest of section 19-19-4w, has crooked hole; depth 4450 feet. Roxana Petroleum Corporation has rig up for No. 2 McCully in the northwest of the northwest of the northeast of section 30-19-4w.

Galt Brown Company and Marland Oil Company are drilling at 5168 feet in Knechet 1, section 21-18-4w. Healdton Oil & Gas Company is rigging up standard tools at 4122 feet at Grass 1, in the southwest corner of the southwest of the southwest of section 29-18-4w.

Red River District

Lesh-McCall Penniston 3, in the northeast of the southeast of the southwest of section 17-7s-5w, in the Red River area of south Jefferson County, drilled to 765-800 feet in sand and resulted in a 45-barrel pumper.

Wirt Franklin Oil Corporation is drilling ahead at 800 feet after going through sand which showed gas and some water at 743 to 780 feet in its Foster 1, in the southwest of the northwest of section 35-4s-4e, Marshal County. This wildcat operation is one and one-half miles south of Mannsville.

Two and one-half miles west and one mile north of Mannsville the same company is drilling at 395 feet in shale in its Wilkes 1, section 18-4s-4e, in Johnston County, after passing through sandy lime showing oil at 330 to 334 feet. Johnson-Tucker have started drilling their Cyrus Penner 1, in section 31-5s-7e, which is six miles southeast of Tishomingo.

Okfuskee County

Tulsa.—Sutton and Hart's McGee 1, in the center of the north line of the northwest quarter of the northwest quarter of Section 27-9n-10e, north of the Papoose pool and south of Wetumka, in southern Okfuskee County, is making 10,000,000 feet of gas and spraying 30 barrels of oil. The Papoose sand from which the gas is coming was struck at 3141 feet and the well was drilled four feet in.

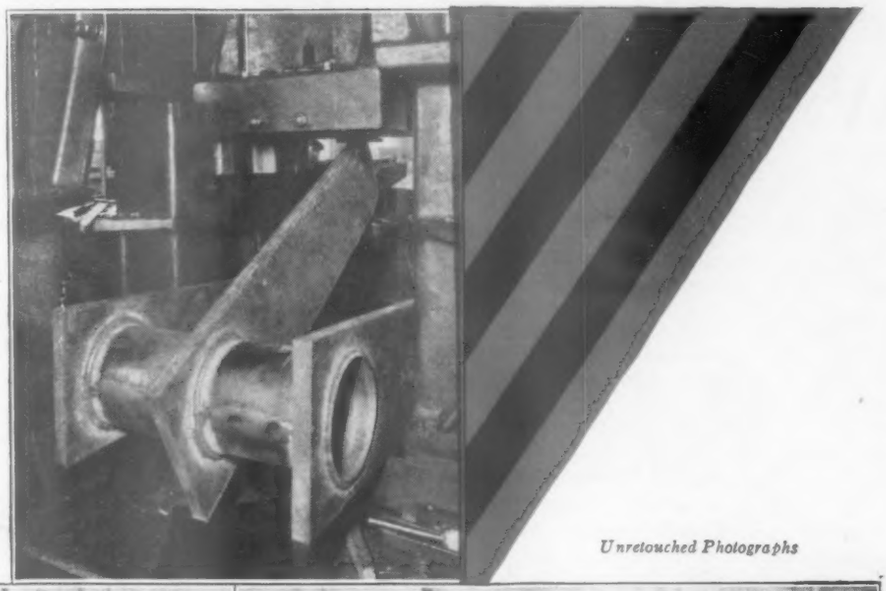
Burbank Extension

Tulsa.—The Burbank field was extended one mile east last week when the Lewis Oil Company completed a well in the northeast corner of Section 22-26-6. The sand was topped at 2938 feet, with the first oil at 2941 feet. At 2982 feet drilling was stopped, with 300 feet of oil in the hole, and temporary storage was being provided. Gravity of the oil was 38 A. P. I., corrected.

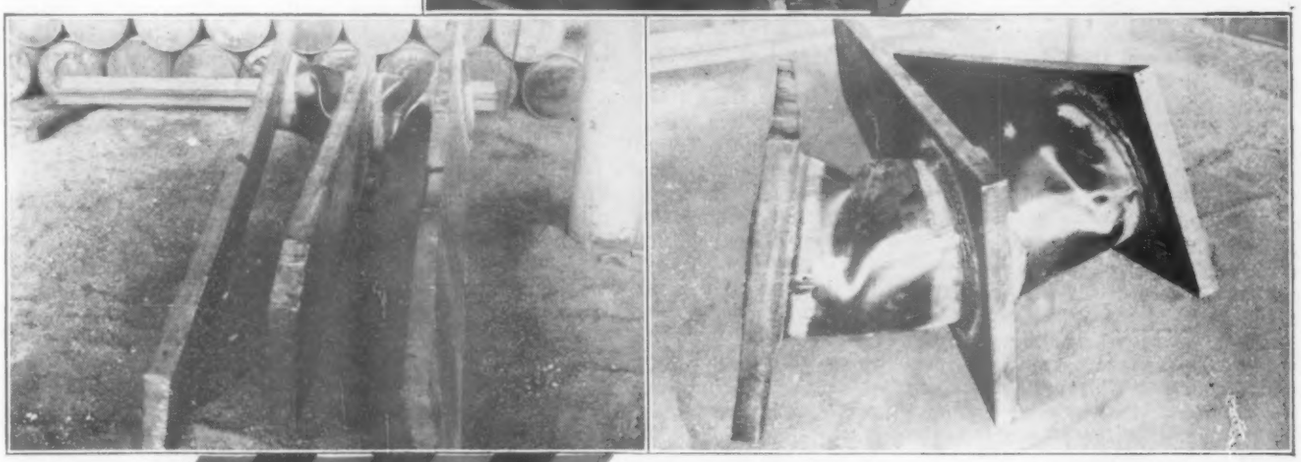
Tulsa.—H. H. Taylor et al have secured production in Samples 1, at Mannford, west of Tulsa. Latest reports indicate a flow of about 300 barrels daily from the Oswego sand.

When the Twist Came

In this test, a short length of Smithsteel Gas Line Pipe was welded on to three beams of 2-inch plate and subjected to twist in a powerful press as shown in the photograph at the right. The results are shown below.



Unretouched Photographs



Although completely distorted throughout under this 45 degree twist, the Smithweld did not fail at any point.

A. O. SMITH CORPORATION
General Offices—Milwaukee, Wisconsin

Oil & Gas Field Products Division
District Offices at New York City, Pittsburgh, Tulsa, Houston, Los Angeles

SMITHSTEEL GAS LINE PIPE

Bulk of Kansas Activity Centered in Six Counties

WICHITA, Kan.—According to reports covering last week's activities, Kansas now has 252 tests for oil and gas in operation. Most of this work is concentrated in Sumner, Marion, Butler, Greenwood, Cowley and Russell Counties.

Marion and Sumner Counties lead the others with 32 drilling wells each. Greenwood is second with 29 active tests; Cowley County has 28 and Butler County 24. Activity in the other counties shows drilling wells as follows: Elk County, 13; Coffey, three; Chautauqua, four; Lyon, one; Barber, five; Sedgwick, two; Reno, one; Harvey, one; Morris, six; McPherson, six; Ellis, four; and Rooks County, seven.

Sumner County leads in interest at present because of the development of a possible new productive area at Gueda Springs, in the southeastern part of the county. Harris and Haun's Warner 1, in the northwest of the northeast of section 23-34-2e, although variously reported in size, is evidently a pool opener, and has been taken over for operation by the Roxana Petroleum Corporation. Wilcox sand production was secured at 3791-92 feet. The well was being deepened with four-inch tools at the end of the week, and five-inch liner was to be set, since there was 50 feet of open hole. Harris and Haun's Hendricks 1, in the southwest of the southwest of the southeast of section 14-34-2e, was reported straight reaming at 3500 feet. This well is a north offset to Warner 1. The same operators were building a rig for Mireau 1, in the northeast of the northwest of section 23-24-2e, to drill a west offset to the first completion. Lario Oil & Gas Company Easton 1, north of Gueda Springs was under-reaming for eight-inch casing at 2600 feet.

E. B. Shawyer and Marland's Norrish 1, wildcat, in the southwest part of the Gueda Springs district, was reported as a completion good for 100 barrels, from chat at 3362-3374 feet. The well is in the northeast of the southwest of section 27-34-2e. Adjoining acreage is owned by the joint operators, with the exception of one offset tract which is held by the Carter Oil Company. Offsets to the two producers have been started.

On an island in the Arkansas River, Sumner County, three miles north of the Oxford Area, Roxana has made a location and is to start operations at once. The island is claimed by the State and also by two individuals, so Roxana has secured leases from all three interested parties while the courts attempt to straighten out the title difficulties.

In Butler County, Phillips Petroleum Company recently purchased from the Gypsy Oil Company, the Hazlett lease in section 6-24-5, with three wells producing 16 barrels; the Spinner lease in section 5-23-4e, with three wells producing 17 barrels, and the Kerr lease with two wells making 12 barrels.

Interest in Cowley County centers around the district near Atlantam, where the Luett-Sheets Oil Development Company reports an oil sand in a test on the Lee Marshall Ranch in the southwest corner of the northeast of section 36-30-6. Tankage is being provided.

John Herron et al report a hole full of 40 gravity oil on the Marshall farm, from sand at 2901 feet.

The White Eagle Oil & Refining Company verified a report of good showings in its wildcat test on the Laura Smith farm, in section 26-34-5e, 10 miles east of Arkansas City. The well is now drilling.

In Western Kansas, directly north of the Panhandle district of Texas, an interesting wildcat campaign is under way. Walter Sidwell has completed a rig for his Kelly 1 in the southeast of the northwest of section 16-34-38w, Stevens County, 15 miles from Hugoton. The test is to be about five miles southwest of his big gas well. In Trego County, the Central Commercial Company is drilling below 500 feet in section 10-13-21w. In Sherman County, Hansen and associates are shut down in Murry 1, section 22-7-4w, at 2990 feet. Tom Slick, Inc., is drilling below 4025 feet in Pyle 1, Seward County. Rig is up for Catwood 1, Rush County, where the Rush Oil Company is to drill in section 4-15-20.

Midwest Exploration Company is reported as leasing blocks in Western Kansas, after working the districts geologically and then taking only the tops of the structures. Areas considered to have good possibilities are core drilled.

Gypsy and Roxana are also interested in Western Kansas acreage.

Noodle Creek

Abilene, Texas—Ten operations are getting under way in the new high gravity oil area located about four miles north of the Noodle Creek field, Jones County, as result of the recent completion of a 760 barrel well at 2526-31 feet on the Tiner land, by Hucony Gas Company and Atkinson & Sandifer. Ample facilities are available to market all oil produced, since Humble Pipe Line Company will complete a six-inch line into the district late this week, with a four-inch extension into the Royston area, Fisher County.

R. W. Rainey and Bill Little's wildcat test on the J. L. Marberry land, section 56, H. T. & B. survey, block 1, Fisher County, and about midway between the Royston and Noodle Creek fields, was bailing live oil and some water early this week from lime at 3285-89 feet. This wildcat passed up a good show of oil last March at 3025 feet. It topped the lime at 2995 feet, with a surface elevation of 1929 feet.

No Change in Little River Curtailment Plan

(Continued from page 34)

this important field. He stated that the successful culmination of plans of this kind in the South American field depended to a large extent upon the success attending the Seminole curtailment meeting today at Tulsa and the proposed shut-down program to effect the Champagnolle pool in Arkansas, which is to be inaugurated Friday at El Dorado, Arkansas.

Gypsy Oil Company will pinch its Wilcox sand producer, Makasukey 1, on the Mission land, to 100 barrels per day in accordance with the general scheme of proration of production.

Chairman Parker C. Ewan of the department of conservation of Arkansas held a preliminary conference Monday with reference to the situation in the Champagnolle field of Union County, Arkansas, and is presenting to other members of the commission a proposed order for a general hearing at El Dorado Friday, June 15. All those interested in the field are to be summoned before the commission for the purpose of ascertaining the best plan for regulating the production of the pool and preventing waste. The chairman stated that in his opinion the commission would be willing to assist in enforcing any reasonable order that a majority of the operators would recommend. It may include appointment of a committee of five or six operators to outline a plan of restricted drilling and proration to prevent the field exceeding present pipe line outlet, such plan to be adopted and enforced by the commission much in the same manner as is being done in Winkler County, Texas.

The field was reported yesterday to Commissioner Ewan as producing about 40,000 barrels daily with a very possible extension of the field northwest or southwest or both. If the remaining members of the commission approve the action of chairman today a meeting will be held Friday evening as scheduled and an immediate effort made to hold the pool in check.

It was suggested at the Tulsa meeting today that Umpire Ray M. Collins of the Greater Seminole curtailment program be present at El Dorado Friday night to assist Arkansas operators in the perfection of fair and adequate plans.

Wichita-Ottawa Gas Line

Bartlesville.—Cities Service Gas Company has received bids for its proposed 130-mile gas line which is to be laid from Wichita to Ottawa, Kansas. The line will be 20-inch.

Most of the right-of-way has been secured and the line has been staked. Laying the line will involve six river crossings between the two cities, where multiple line construction will be installed.

The Wichita and Ottawa compression transmission stations have been enlarged recently.

PERSONAL MENTION-MEN YOU KNOW

G. N. Larson, production superintendent for The California Company in the Northern District with headquarters at Billings, Montana, has been transferred to the Southern District headquarters at Dallas, Texas, to become assistant to Warner Clark, manager of the district.

Truett B. Cranfill, a member of the Cranfill Brothers Oil Company, Dallas, is in New York on a business mission, and will not return until the latter part of June.

Idus Echols, foremrly production superintendent for the Eastland Oil Company in the Church & Fields area, West Texas district, is now superintendent in charge of the Church & Fields properties of the Warner-Quinlan Company of Texas with headquarters at Crane City, Texas. The Warner-Quinlan Interests of New York purchased three separate producing properties in the former field several months ago, and retained most of the field men already at work. J. C. McIntyre is president and general manager, with offices on the second floor Magnolia Building, Dallas.

Fred M. Lege, Jr., president of the Magnolia Gas Company, Dallas, departed last week on a business trip to New York.

Ed. T. Horrigan, formerly with the pipe line division of the American Petroleum Company at El Dorado, Arkansas, has been transferred to the Republic Production Company and made agent for the Dallas, Texas, district office.

C. E. Sutton, petroleum engineer, U. S. Bureau of Mines, Dallas, will be in El Dorado, Arkansas, after June 15, and his address there will be in care of the Pure Oil Company.

Frank J. Silsbee of Evanston, Ill., petroleum statistician, is in Casper this month investigating over-production problems of the industry for eastern clients. He is covering the Mid-Continent, Gulf Coast, Rocky Mountain, and Pacific coast districts. Mr. Silsbee is of the opinion that the oil industry is undergoing an economical change which is basic and fundamental. He believes that refiners must revise their operations to meet changed conditions, especially in adapting plants to handle black oil. By so doing he believes they can make use of practically all the black oil production in the United States and thus displace the cheap crude imported from Mexico, Venezuela, and other foreign fields.

W. A. "Bill" Tracey, export buyer for the Sinclair Refining Company of Louisiana in the North Texas district with headquarters at Wichita Falls, was a business visitor in Dallas late last week. Mr. Tracey reports that his company has purchased more gasoline from independent refiners during the past spring and early summer months than for several years past.

A. M. Bowman, general purchasing agent of the Humble Oil & Refining Company, Houston, was elected president of the National Purchasing Agents' Association during the recent annual convention of the organization at Kansas City. He had served as vice-president of the national association last year, and was elected president without opposition.

Mr. Bowman has been purchasing agent for the Humble Oil & Refining Company for the past eight years. He came to Texas from Toledo 21 years ago, accepting the position of purchasing agent for Gulf Production Company at that time. His varied career includes service as president of the Southern Well Works Company and as purchasing agent for the Republic Production Company.

Since his association with the Humble Oil & Refining Company he has been active in work of the American Petroleum Institute, holding membership in the rotary drilling equipment committee; and is now national secretary of the standard rig and derrick committee. He is also chairman of the standardization committee of the Houston Purchasing Agents' association.

A. M. BOWMAN

Leland E. Fiske, formerly head of the tax and accounting departments of the Wiser Oil Company and associated companies, announces the opening of an office as a Certified Public Accountant and Valuation Engineer at 216 Atlas Life Building, Tulsa. Mr. Fiske was at one time oil and gas valuation engineer in the income tax unit and, in addition to a general accounting practice, will specialize in oil property taxation and appraisal.

Joe W. Elsbury, chief scout for the Marland Production Company in Texas with headquarters at Fort Worth, departed early this week accompanied by his wife and daughter on an automobile vacation trip to Cal-

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H. R. Freeman, of the National Supply Company, at Pittsburgh, visited in Tulsa and Kansas City recently.

A. B. Stillwell, representative for the Guiberson Corporation in Los Angeles, made a recent business trip to Tulsa.

Walter G. Klippel, of the E. J. Longyear Company, Ponca City, was in Tulsa last week in the interest of the company.

D. B. Crawford, secretary-treasurer of the Parkersburg Rig and Reel Company, of Parkersburg, W. Va., was a recent Tulsa visitor.

E. N. Koonsman, representative for the Pittsburgh-Des Moines Steel Company, at Dallas, made a business trip to Tulsa.

Earl W. Miller, vice-president of the American Iron and Machine Works with general offices and plant at Oklahoma City, is on a trip to the West Coast.

W. S. (Bill) Hovis has been named special representative for the American Tank Company in the Arkansas-Louisiana territory with headquarters at Shreveport. He will specialize on American oil and gas separators. General offices and factory of the American Tank Company are at Oklahoma City, Oklahoma.

Charles H. Homer, formerly drilling superintendent of the Rio Bravo Oil Company, Houston, has joined the organization of the Rycade Oil Corporation as district drilling superintendent, and is in charge of the company's Atchafalaya River operations, St. Martin Parish, Louisiana. In that district the Rycade is running four rigs. Its discovery well there, the Atchafalaya Fee 2, is pumping and flowing 800 barrels a day.

New Wells Scarcely Overcome Long Beach Decline

LOS ANGELES.—It begins to look as though the conservative figures arrived at a few weeks ago for the peak of production for Signal Hill are going to win. The mark set was 210,000 barrels. Last week the grand total aggregate ran 199,312 barrels, this week an increase of 700 barrels closed the figure at 200,012. A check of developments indicates that while there is a lot of deep drilling underway the major portion of the heavier drilling programs have been pretty well taken care of. Here and there a three or a four thousand barrel well is completed, but the average run of the new wells is about 1400 to 1500 barrels.

It is were not for the occasional gusher the output would fall behind, as the average producers are just about taking care of the natural decline of the field. Deep sand production is now rated at 139,000 barrels, and a total of 690 wells is listed on the producers column of the week's resume.

Probably the most important lease move in the old field was made this past week when the Standard Oil Company came into Long Beach. In the boom days of Signal Hill four years ago the Standard Oil Company did some wildcat extension work in the extreme southeastern end of the field and was not successful. The Standard now comes back to wildcat on the extreme northwestern end of the field. The return of the Standard was brought about through the activity and convincing persuasiveness of George A. Langstaff of Whittier. Langstaff spent a long time tracing what he thought was a structure out through the northwest side of the field and leased 50 acres of the Bixby Ranch property. A part of this property Langstaff turned to the Standard in return for "dry hole" money to drill a well on a 10-acre property adjoining. The test well is to be located 550 feet west of the Pacific Electric right-of-way and 210 feet north of Wardlow Road.

The Italo-American Petroleum Corporation of San Francisco is assuming proportions as a developing and marketing concern that is attracting considerable attention. The new concern started out by acquiring the properties and holdings of the Brownmoor Oil Company on the Kern Front, Kern County. The next move was the taking over of the holdings of the McKeon Drilling Company, one of the pioneer operators of Long Beach. A few days ago the concern acquired the producing properties of L. T. Edwards, a private operator. The acquisitions on Signal Hill gives the Italo-American Petroleum Corporation a 10,000 barrels production in Southern California. In addition to these new acquisitions in the way of development and producing properties the Italo-American is negotiating for a group of refineries on the Coast. It is also understood the Italo-American will soon have a fleet of tankers and will seek foreign trade.

New Producers

Listed as Long Beach's most important new producers this week are the following: The Cypress Petroleum Company completed a 1100 barrel well in Crest 3, drilled to 6012 feet. The Pan-American Petroleum Company finished one of its Union Pacific Railway right-of-way wells, No. 1, at 5804 feet and got a 1000 barrel producer. The Richfield Oil Company completed its Wilhelm 1 at 6489 feet, the well doing consistently 4100 barrels. The Richfield's Hass 16 is another 3000 barrel well completed at 6325 feet. The Shell Company in the completion of Church 2 at 6893 feet added 1400 barrels of new production. The Texas Company's Croswell 2, finished at 6583 feet is a 1300 barrel well, and the Woolner Oil Company was rewarded with a 1500 barrel producer in the completion of its No. 1 at 5993 feet.

About midway between the Associated Oil Company's Potrero high gravity field and the Baldwin Hills-Inglewood field a wildcat well is drilling that gives promise of opening another high gravity oil field for the Los Angeles Basin. The well is the Ring Petroleum Corporation's Simons Brick Yard 1, formerly known as the Hurst Oil Corporation. When drilling past the 4100 feet mark showings began putting in an appearance, and as the hole deepened the showing increased. At the present depth of 4350 feet the formation carries oil sand and brown sandy shale in streaks. At times the ditch runs full of gas and oil bubbles, and the outlook is most encouraging. The best geological talent of the Basin gives the Ring Petroleum Corporation a chance to get a commercial producer. The well is located in the Townsite of Inglewood and if successful would precipitate another town lot drilling stampede.

That the oil operators of the Los Angeles Basin do not believe that all the opportunities for new fields have been passed up is evidenced by the fact that two new wildcats have just been located. The World Petroleum Corporation has located a well on the Blythe property at Bellflower. The new Bellflower project is about 1300 feet south of the Calpetero Producers Syndicate test well drilled five years ago to 4340 feet. This well had some excellent oil and gas showings, but owing to failure to shut off water and mechanical difficulties was never in a position to make any kind of satisfactory production test.

Northwest of Downey the Associated Oil Company will be starting a well soon on the McFarlane property. The Downey area has been considered possible for some time, and some wildcatting has been done without success. However the Associated is going into an untried area and many surprise the oil fraternity as it did recently at Potrero.

The Chanslor-Canfield-Midway Oil Company with its Republic offset No. 29 on Section 8-32-23, has not come up to expectations by any means. The stage was all set for a 1500 barrel well, but production so far has averaged about 550-600 barrels. The well was drilled to 2944 feet and has 185 feet of sand zone for production. It is understood that experiments are being made as to where to set the 2½-inch tubing and it is thought that after the correct point is determined and the well gets underway it will make a 750-800 barrel producer.

The Republic Petroleum Company's deep sand discovery well, No. 25, Section 8-32-23 marketed 33,500 barrels of oil last month, and the producer is holding up splendidly and has destroyed forever any idea of a freak or pocket well.

Two other deep wells are to start drilling in the Midway soon. The North American Consolidated Oil Company will drill one on 16-32-23 and the St. Lawrence Oil Company another on Section 5-32-23.

Below the 7000 foot mark on the Ventura Avenue the operators continue to find big production. The well of the week in the famous Ventura field is the Shell Company's Taylor 25, drilled to 7120 feet and making 2650 barrels of 30 gravity, clean oil. This well has a producing zone in excess of 1800 feet and should be another long lived producer.

The well from the deep development standpoint of interest in the Ventura Avenue field is the Associated Oil Company's Lloyd 100. This well has passed 7950 feet and continues to show streaks of oil sand in the formation. The Associated Oil Company will endeavor, barring mechanical difficulties, to determine the extent of the oil producing measures of the Avenue.

At Rincon the Chanslor-Canfield-Midway Oil Company completed its Hobson B1 at 2989 feet a few days ago and got a 600 barrel, 30 gravity clean oil producer.

E. J. Miley, will make a test of a deep sand at Rincon. Drilling on the Miley-Hobsan 1 stopped at 4985 feet and nine-inch casing was set at 4835 feet. The well has about 135 feet of production zone of which 60 per cent. is considered good oil sand.

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Champagnolle Producing Area Extended Mile

SHREVEPORT, LA.—The Champagnolle field, in Union County, Arkansas, recorded its first successful extension well of any importance during the past week, when the Rovenger Oil Corporation's Perdue 1, located in the southeast corner of the northeast quarter of the northwest quarter of Section 10-17-14, was completed as a 5000 barrel well, extending the producing area of the field approximately one mile northeast. With the exception of the Oilwell Corporation's Townsend 1, located in the southeast corner of the 40 acre tract adjoining the 40 acre lease upon which the Rovenger well was brought in, this is the only well that has been drilled in this section of the field since the 3200 foot production was discovered, operators being of the opinion that the structure would trend to the southwest. The Oilwell Corporation's well was abandoned at 3047 feet.

Several locations have been made in the vicinity of the Rovenger Oil Corporation's Perdue well, which was brought in from 3245 feet, the bottom of the hole being in nine feet of sand, flowing approximately 5000 barrels of clean oil a day. During the first 15 hours of flow, the well actually gauged 3205 barrels of oil, accompanied by about 15 million cubic feet of gas. It is now flowing steadily at this rate through two one-inch chokes. During the 24 hours ending the second morning, it produced by actual gauge 4588 barrels of oil, with no sign of salt water or sediment. The producer has been offset on the east and south sides, with a diagonal offset on the southeast. The Magna Production Company has derrick erected at its east offset to the well, as has the Skelly Oil Company at its south offset, which is located in the northeast corner of a 40 acre lease adjoining the Rovenger 40 on the south. This latter tract is reported to have sold recently for $200,000, $40,000 cash and $160,000 out of the first oil produced. The Ohio Oil Company has also made location in the northwest corner of its J. M. Gregory lease, which is a diagonal southeast offset to the Rovenger well, and plans to start work immediately on this test. Other locations made during the week in the direction of this well indicate that it will only be a short while until the entire area between it and the original discovery well, in the southeast part of the same section, will be completely drilled.

Completions

Five other successful completions were recorded, the combined initial output of which added about 10,000 barrels of production to the total yield bringing the daily average to approximately 37,000 barrels a day, including the Rovenger well's production. The older producing wells maintained their normal rate of flow, varying but little from the last week's figures.

It is impossible to predict with any accuracy, the trend or scope of future production at Champagnolle, as very few wells have been drilled to the same level as that which is now producing. E. M. Jones' Crain 3, located in the northwest corner of the northeast quarter of the southeast quarter of Section 2-17-14, which was drilled to 4014 feet, and abandoned as a dry hole, is perhaps the only well within a radius of several miles that has been drilled below the present producing structure, with the exception of a test that is now being drilled by the same interests near the southeast corner of Section 22-17-14, about two miles south of production. The first deep test made by the Jones interests is about one mile northeast of the Champagnolle field, in the vicinity of the first wells drilled in the Rainbow City area; and which produced a small quantity of oil from the 2900 foot sand. With one exception, these wells were failures.

Important Tests

Several important tests will be made in the field during the next week, among them being the Magna Production Company's Rowland 2, located in the southwest corner of the northwest quarter of the northwest quarter of Section 14, now coring below 3279 feet, where it tested salt water in three feet of sand. This test is a north offset to the Estes well, in the same section, which is producing from the 3000 foot sand, and is the farthest south producing well in the field. The Magna Production Company's Dumas 5, in Section 11, near the extreme northeast line of the field, failed to pick up the regular sand after being drilled to 3290 feet, but is reported to have encountered three feet of sand showing oil at this depth. The Pure Oil Company has had practically the same experience with its Gregory B-1, located in the southeast corner of the southeast quarter of the northeast quarter of Section 10, almost in the limits of the producing horizon of the field in a north direction, which well has been drilled to 3311 feet, without any trace of the regular pay sand.

Outside of the proven area, the Ohio Oil Company has abandoned its J. W. Pumphrey 2, in Section 1-17-14, at 3247 feet, after testing dry. This hole is approximately one and one-quarter miles northeast of the nearest production from the 3200 foot sand, but offsets two producing wells completed in the 3000 foot sand. A mile east and north, the Arkansas Drilling Company has tested 500 feet of oil with a drill stem test at 3014 feet, and is arranging to set a short string of 4½-inch casing to complete the well. This test is only a short way north and east of the Magnolia Petroleum Company's Carroll 1, which has been flowing 280 barrels a day for about six months from 2982 feet. In the opposite direction from the field, the Root Refining Company is making arrangements to complete its Jerry 1, located in Section 21-17-14, about two and one-half miles southwest of the present producing field, and tests that have been made would indicate that it will eventually be completed as a producing gas well, with a very good possibility that it will make an oil well, since it has only been drilled into the sand one foot, total depth 2800 feet. A drill stem test at this depth resulted in a showing of five million cubic feet of gas, with a slight spray of oil, and the well was closed in to permit the setting of a string of eight-inch casing. This is the favored direction for the trend of production, and appearances are that the present week will witness the extension of the proven field two and one-half miles.

Another very interesting test, and one that is attracting favorable attention despite the fact that it is far removed from the center of interest at the moment, and in a direction from the field that has not been noticed to a great extent, is that of the Ouachita Natural Gas Company, in Section 33-16-14. This well, Perdue 1, situated in the northwest corner of the northwest quarter of the northwset quarter of the section, is coring at 3040 feet, after striking the top of the Red Beds at 2870 feet, which is the approximate depth at which this formation is encountered in the producing wells in the Champagnolle area. This well is located five miles northwest of the Rovenger Oil Corporation's recent extension well, and in the same general direction from the proven field. Only two wells, drilled to the 3000 foot horizon, separates this test from the field. Considerable acreage trading is reported in and around this test, with close in leases selling for around $50 an acre.

Cotton Valley

The Humble Oil & Refining Company's Webb 2 at Cotton Valley failed to come up to expectations when tested last week at 4700 feet, as it only produced five to six million cubic feet

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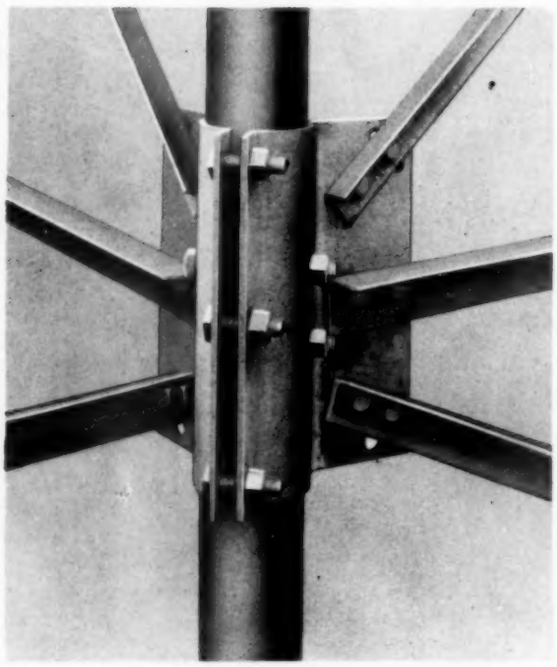

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of gas, accompanied by a slight spray of salt water. This well, although located approximately two miles east and north of the Ohio Oil Company's present producer in the Trinity sand, was looked upon as favorably located for oil production.

The next test scheduled in the field will be that of the Magnolia Petroleum Company, in its Mixon 1, located in the northwest corner of the southwest quarter of Section 22-21-10, now coring below 4434 feet. This well is an east offset to the Ohio Oil Company's Crichton 2. Three other wells are also nearing the testing stage. These are the Palmer Corporation's Mixon 1, located near the southwest corner of Section 22, coring around 4400 feet; the Louisiana Oil Refining Corporation's Lindsay 4, in the northwest corner of the same section, drilling at 4456 feet, and the same company's Crichton 5, in the southeast corner of the northeast quarter of Section 21-21-10, now drilling below 4300 feet. These three wells, all within striking distance of the only two large producers in the Trinity formation, are being watched with eager interest.

Richland Parish

The Gulf Refining Company's Rhymes deep test, in Section 28-17-6e, Richland Parish, the first deep test to be drilled in this section, caught fire recently when it blew in unexpectedly while drill stem was being pulled from 3645 feet, and is now burning uncontrolled. Arrangements are being made to extinguish the flames with the use of steam, and boilers are being moved in and set up for that purpose. It is thought that the gas is coming from the regular Richland Parish gas sand, found around 2400 feet, as the last string of casing was landed at 2310 feet. The regular pay sand was not tested.

The possibility of securing oil production in the old Shongaloo section of Webster Parish, long the object of exploration work, was given a decided boost during last week when Bruce Richardson's Mayfield 1, in Section 20-23-9, showed more than the usual amount of oil. There have been several wells drilled in this section during recent years that have developed good showings of oil, but none of them have had the showing that is reported to be present in the Mayfield well. This well was swabbed for several days, during which time the fluid level stood around 800 feet, a part of which was salt water. Standard rig is now being constructed, and it is planned to put the well on the beam as early as possible. The test is being made at 2776 feet, the bottom of the hole being in six feet of sand. The oil that has been swabbed from the hole tests 30.0 gravity.

West Texas Production

WINKLER COUNTY

	Producing Wells	Daily Average Prod.
Hendrick Field—		
Humble Oil & Refining Company	21	*14,440
Pure Oil Company	16	*14,505
Roxana Petroleum Corporation	20	*14,100
Southern Crude-R. A. Westbrook	19	*12,265
Cranfill & Reynolds, Inc.	4	*11,260
Gulf Production Company	13	*10,855
Landreth Prod. Corp. & Roxana	10	*10,615
Atlantic-Collett-O'Keefe	6	*9,695
Atlantic Oil Producing Co.	16	*9,580
Republic Production Company	6	*9,240
Southern Crude-Dixie Oil Company	16	*9,095
Independent Oil & Gas Company	15	*4,530
Texon Oil & Land Company	5	*4,325
Marland Production Co.	2	*3,025
The California Company	8	*2,525
Magnolia Petroleum Co.	8	1,390
Murchison & Cranfill Bros. Oil Co.	6	*1,380
Prairie Oil & Gas Company	1	*755
Totals	192	143,580

CRANE COUNTY

Church & Fields—		
Landreth Production Corp.	16	7,180
Simms Oil Co.-Atlantic Oil Prod. Co.	31	7,095
Prairie Oil & Gas Company	12	6,725
Tidal Oil Co. & Turman-Maxwell	25	4,905
Warner-Quinlan Co. of Texas	27	4,400
Magnolia Petroleum Co.	33	4,180
Humble Oil & Refining Co.	13	3,565
Gulf Production Company	11	1,630
Independent Oil & Gas Co.	7	1,470
Church-Fields et al	2	215
The Texas Company	2	180
Stidham & Thrasher	1	5
Totals	179	41,550
Gulf-McElroy—		
Gulf Production Company	61	15,270
Gulf-Waddell—		
Gulf Production Company	1	20
Marland-Hughes—		
Marland Production Company	14	970
The Texas Company	9	165
McMan Oil & Gas Company	2	50
Totals	25	1,185
Totals for Crane County	265	58,025

REAGAN COUNTY

	Producing Wells	Daily Average Prod.
Big Lake Field—		
Big Lake Oil Company	128	13,475
Texon Oil & Land Company	79	4,175
Skelly Oil Company et al	1	40
The California Company	1	20
Totals	209	17,710

PECOS COUNTY

Yates Field—		
Mid-Kansas-Transcontinental Oil Co.	70	*17,275
The California Company	29	**8,095
Gulf Production Company	17	*6,170
Gulf Prod. Co. (Crockett Co.)	3	230
Roxana Petroleum Corp.	13	*4,495
McMan Oil & Gas Company	4	*3,740
Humble Oil & Refining Co.	12	*3,555
McMan O. & G. Co. & Marland Prod. Co.	16	*3,280
Simms Oil Company	6	*3,095
Marland Production Co.	10	*1,040
Oil Operators Trust & A. T. Herd	7	*945
Red Bank Oil Company	3	*675
Kirby Pet. Co. & Edson Pet. Co.	1	355
Mazda Oil Corp. & Savoy Oil Co.	2	*310
Kirby Petroleum Co.	1	180
Grayburg Oil Co. & T. T. Word	3	135
Phillips Pet. Co.	1	105
Skelly Oil Company	1	100
Dixie Oil Co. (Crockett County)	1	25
Totals	200	53,805

MISCELLANEOUS

Upton County	284	12,390
Howard County	151	*4,690
Mitchell County	140	3,025
Crockett County	35	1,900
Jones County	26	1,885
Fisher County	3	895
Runnels County	2	145
Loving County	2	105
Scurry County	5	35
Totals	648	25,070
Totals for all fields	1514	298,190

*Production partially pinched.

United States Daily Average Production

Figures below are taken from the complete revised estimates of the AMERICAN PETROLEUM INSTITUTE except for the current week, which are advance estimates issued by the A. P. I. and are subject to revision:

1927	Oklahoma	Kansas	Texas (Outside Gulf Coast)	Gulf Coast	North Louisiana	Arkansas	Eastern States	Rocky Mountain	California	United States Daily Ave.	United States Total
January	598,500	117,200	466,400	173,900	52,900	131,550	107,850	84,450	653,450	2,386,200	73,972,150
February	693,350	116,250	479,800	154,600	52,800	128,200	107,150	85,300	642,700	2,460,150	68,884,300
March	710,350	116,100	475,000	154,750	51,450	124,500	104,400	87,600	640,850	2,465,000	76,414,900
April	723,700	115,400	477,300	155,100	50,500	113,350	108,000	89,350	644,550	2,477,250	74,317,750
May	742,200	114,600	488,700	151,300	47,450	112,700	114,000	89,300	633,550	2,493,800	77,307,700
June	768,600	112,200	480,800	151,650	49,150	112,450	111,850	86,050	638,550	2,511,300	75,338,900
July	846,750	107,750	475,800	142,950	56,200	109,900	111,800	86,950	620,700	2,558,800	79,322,300
August	832,900	105,100	483,450	139,350	56,950	104,750	114,600	80,750	621,450	2,539,300	78,717,850
September	797,450	105,200	493,750	142,900	53,450	101,350	110,800	74,500	637,250	2,516,650	75,498,900
October	782,300	105,100	497,900	138,400	51,300	100,450	113,600	73,250	629,000	2,491,300	77,230,000
November	766,900	106,650	501,750	138,100	49,400	97,850	114,900	75,050	623,850	2,474,450	74,233,500
December	720,700	106,150	531,650	138,500	47,200	94,950	111,250	77,150	624,600	2,452,150	76,017,050
1928											
January	675,450	108,300	523,300	125,450	45,250	90,050	109,600	77,000	617,100	2,371,500	73,516,500
February	664,450	110,550	538,750	115,800	45,300	88,250	104,850	75,550	614,750	2,358,250	68,388,850
March	646,850	112,250	575,850	119,900	44,400	85,600	102,150	78,700	617,450	2,383,150	73,877,650
April	620,450	112,150	617,850	118,850	46,900	83,450	107,000	78,500	613,550	2,398,700	71,961,100
May 5	617,100	110,300	672,750	123,750	44,800	84,100	110,500	81,050	622,300	2,466,650	17,266,550
May 12	613,300	109,150	557,550	129,850	43,450	86,100	111,500	81,600	622,900	2,355,400	16,487,800
May 19	610,050	108,150	535,950	130,000	43,600	86,600	112,500	80,150	632,000	2,339,000	16,373,000
May 26	609,450	108,450	531,350	132,700	43,550	94,950	113,500	80,000	636,800	2,350,750	16,455,250
June 2	599,700	107,950	533,450	131,850	42,700	107,050	112,000	89,900	640,800	2,365,400	16,557,800
June 9	596,650	106,550	533,650	139,050	43,250	106,600	110,500	82,750	644,800	2,363,800	16,546,600
Increase	.....	.....	200	7,200	550	.....	.....	.....	4,000	.....	.....
Decrease	3,050	1,400	.....	.....	.....	450	1,500	7,150	.....	1,600	11,200

TEXAS

(Outside Gulf Coast)

PANHANDLE DISTRICT

	June 9	June 2
Carson County	7,000	7,100
Gray County	19,200	18,800
Hutchinson County	36,000	38,000
Wheeler County	1,100	1,200
Others	100	100
Totals	63,400	65,200

NORTH TEXAS

Archer County	21,500	21,800
Baylor County	100	100
Burkburnett	10,500	10,500
Clay County (Petrolia)	550	550
Electra	13,200	13,100
Iowa Park-KMA	3,850	3,900
Montague and Cooke Counties	12,150	12,050
Wilbarger	15,000	13,000
Totals	76,850	75,000

WEST CENTRAL TEXAS

Brown County	13,050	12,900
Callahan County	3,800	3,700
Coleman County	1,900	1,850
Eastland-Desdemona	7,600	7,750
Jack County	1,300	1,350
Palo Pinto County	400	400
Shackelford County	9,900	9,800
Stephens County	7,850	7,950
Throckmorton County	1,000	1,000
Young County	7,350	7,250
Others	600	600
Totals	54,750	54,550

WEST TEXAS

Crane-Upton Counties	68,000	69,800
Crockett County	2,250	2,300
Howard County	4,500	4,450
Jones County	1,350	1,300
Mitchell-Scurry Counties	2,950	3,000
Pecos County	53,000	53,150
Reagan County	17,500	17,700
Winkler County	143,000	140,550
Others	1,850	1,700
Totals	294,400	293,950

EAST CENTRAL TEXAS

Corsicana-Powell	11,100	11,150
Currie	500	500
Mexia	6,850	6,900
Nigger Creek	1,250	1,250
Richland	500	500
Wortham	1,850	1,900
Totals	22,050	22,200

SOUTHWEST TEXAS

Dale	1,050	1,300
Laredo District	5,700	5,750
Luling	13,050	13,000
Lytton Springs	1,300	1,400
Somerset	700	700
Others	400	400
Totals	22,200	22,550
T'tl Tex. (outside Gulf Coast)	533,650	533,450

TEXAS GULF COAST

Barbers Hill	700	700
Batson	1,400	1,300
Big Creek	1,400	1,500
Blue Ridge	5,850	6,100
Boling	2,650	3,000
Damon Mound	850	900
Goose Creek	7,200	7,000
Hull	12,050	12,650
Humble	1,100	1,150
Orange County	4,400	4,300
Pierce Junction	11,950	14,250
Saratoga	1,100	1,100
Sour Lake	3,400	3,500
South Liberty	4,350	3,950
Spindle Top	41,950	41,250
West Columbia	7,950	7,600
Others	1,700	2,150
Totals	110,000	112,400
Texas Total	643,650	645,850

OKLAHOMA

North Braman	2,900	2,950
South Braman	1,550	1,600
Blackwell	3,400	3,450
Hubbard	2,850	2,900
Thomas	1,350	1,400
Tonkawa	14,350	13,550
Garber	8,700	8,600
Burbank	32,750	33,400
Osage (outside Burbank)	28,500	28,550
Watchorn	700	750
Cushing	20,050	20,150
Yale Jennings	9,000	9,050
Davenport	2,000	2,000
Bristow Slick	22,650	22,950
North Okmulgee	15,400	15,400
Lyons Deaner	6,550	6,600
Stroud	1,050	1,050
Cromwell	9,750	9,600
Papoose	4,400	4,350
Wewoka	6,550	6,800
Seminole	52,250	52,000
Bowlegs	62,550	63,250
Searight	14,700	15,250
Little River	44,500	45,150
Earlsboro	90,000	91,750
Duncan District	6,950	6,750
Graham	5,700	5,750
Fox	1,700	1,700
Healdton	13,950	13,900
Hewitt	9,300	9,200
Scholem Alechem	15,000	14,200
Others	85,600	85,700
Totals	596,650	599,700

CALIFORNIA

Santa Fe Springs	36,000	36,000
Long Beach	198,500	195,500
Huntington Beach	55,000	56,000
Torrance	18,000	18,000
Dominguez	12,000	12,000
Rosecrans	6,000	6,000
Inglewood	29,000	29,000
Midway-Sunset	73,500	73,500
Ventura Avenue	47,500	45,500
Seal Beach	37,500	37,500
Others	131,800	131,800
Totals	644,800	640,800

KANSAS

Greenwood County	29,200	29,300
Florence-Covert	1,400	1,400
Peabody-Ebling	3,600	3,600
Eldorado-Towanda	14,000	14,000
Augusta-Fox Bush	4,050	4,050
Rainbow Bend	1,600	1,600
Russell	3,500	3,600
Churchill	12,050	12,250
Oxford	12,400	13,400
Others	24,750	24,750
Totals	106,550	107,950

NORTH LOUISIANA

Homer	4,400	4,400
Haynesville	6,300	6,250
Caddo Light	9,600	9,700
Caddo Heavy	3,300	3,500
DeSoto-Red River	4,200	4,050
Elm Grove	550	550
Bellevue	900	1,050
Cotton Valley Light	1,550	1,700
Cotton Valley Heavy	4,150	4,300
Urania	7,700	6,600
Pleasant Hill	600	600
Totals North Louisiana	43,250	42,700

LOUISIANA GULF COAST

Edgerly	950	1,200
Evangeline	900	950
Lockport	4,050	4,000
Vinton	4,650	4,550
Sorrento	2,000	.....
East Hackberry	5,150	2,900
Sweet Lake	3,900	2,850
Bayou Boullion	650	500
Sulphur Dome	6,500	2,200
Others	300	300
Total Louisiana Gulf Coast	29,050	19,450
Louisiana Total	72,300	62,150

ARKANSAS

El Dorado	5,350	5,350
Champagnolle	28,000	28,600
Smackover Light	7,850	7,800
Smackover Heavy	60,400	60,650
Stephens	1,050	1,050
Nevada	1,700	1,350
Lisbon	2,150	2,150
Others	100	100
Totals	106,600	107,050

MOUNTAIN STATES

WYOMING

Salt Creek	43,250	49,700
Grass Creek	2,500	2,500
Elk Basin	1,150	1,050
Big Muddy	2,600	2,600
Lost Soldier	4,300	4,350
Rock River	2,650	2,600
Lance Creek	650	700
Others	6,300	6,550
Totals	63,400	70,050

MONTANA

Cat Creek	1,750	1,750
Sunburst	8,800	8,800
Others	150	150
Totals	10,700	10,700

COLORADO

Moffats (Craig)	1,000	1,250
Fort Collins	2,700	2,550
Florence	1,200	1,550
Others	2,100	1,700
Totals	7,000	7,050

NEW MEXICO

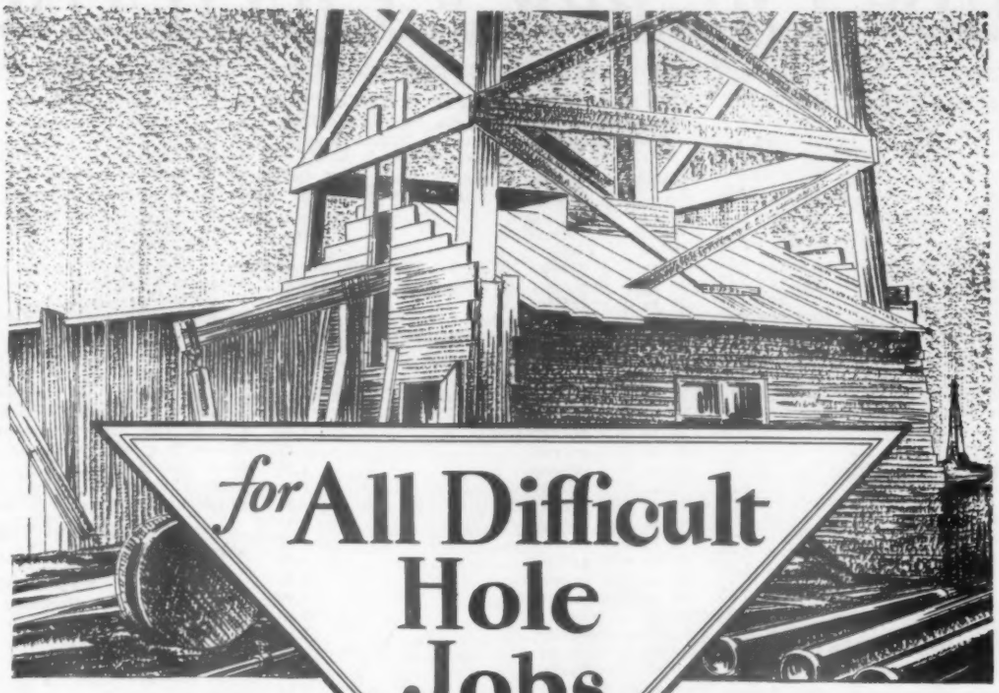
Table Mesa	.....	350
Artesia	1,250	1,250
Hogback	200	200
Rattlesnake	.....	100
Others	200	200
Totals	1,650	2,100
Totals Mountain States	82,750	89,850

EASTERN STATES

(Including Ill., Ind., Ohio, W. Va., Pa., Ky., and N. Y.	110,500	112,000

PRODUCTION SUMMARY

East of Rockies	1,636,250	1,634,700
U. S. Total	2,363,800	2,365,400



for All Difficult Hole Jobs

No matter how difficult your bottom hole work, Oilmax will *do* the job at a saving of time and money. Used neat only, it gets as hard in 24 hours as Portland Cement in ten days—*and requires no accelerators or admixtures.* It always sets and hardens evenly. Oilmax saves time whether used for setting casings, shutting off water, straightening crooked holes, plugging back, cementing off lost tools or filling cave-ins or caves. With a uniform mix, made easy because only water is added, weak or soft spots are eliminated.

And Oilmax Cement will set up satisfactorily under conditions common to oil field operations. Specially compounded, it sets up in salt water, or water containing oil, sodium chloride, magnesium chloride or calcium sulphate.

OILMAX CEMENT

Oilmax is not quick-setting. It takes its initial and final set normally, allowing ample time for mixing and placing.

Oilmax is a true Portland Cement, meeting all Govt. and A. S. T. M. specifications. It is unusually plastic, slips easily and quickly and will work equally well in bailer and pump. Use Oilmax for a safe, quick, sure job every time.

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District Sales Office: OKLAHOMA CITY, OKLA.
Petroleum Bldg., Phone Maple 0642.

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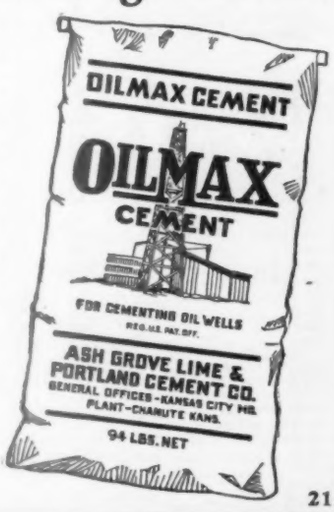
You can secure Oilmax Cement through legitimate retail dealers. Packed in sturdy 5-ply paper bags, it may be shipped in mixed cars with Ash Grove Portland Cement or Quikard Cement. If your dealer does not stock it, write or phone us for complete information.



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CRUDE OIL PRICE QUOTATIONS

CURRENT POSTINGS

EASTERN STATES

	June 13 1928
New York Transit	$2.80
Bradford District	2.80
National Transit	2.65
Southwest	2.65
Eureka	2.60
Buckeye	2.35
Macksburg	2.80
Gaines	2.60
Somerset	1.45
Cabell	1.35
Ragland	.95
Corning, 35-cent grade	1.45
Corning, 25-cent grade	1.55
Keister	1.10

CENTRAL STATES

Illinois	1.50
Indiana	1.32
Lima	1.55
Plymouth	1.23
Princeton	1.50
Waterloo	1.35
Wooster	1.57

WESTERN KENTUCKY

Posted by Stoll Refining Company for crude from Allen, Warren, Franklin, Davies, Barren, All grades 1.50

MID-CONTINENT

Prairie, Sinclair and Gulf

28 to 28.9 gravity	.96
29 to 29.9 gravity	1.01
30 to 30.9 gravity	1.06
31 to 31.9 gravity	1.11
32 to 32.9 gravity	1.16
33 to 33.9 gravity	1.19
34 to 34.9 gravity	1.22
35 to 35.9 gravity	1.25
36 to 36.9 gravity	1.28
37 to 37.9 gravity	1.31
38 to 38.9 gravity	1.34
39 to 39.9 gravity	1.37
40 to 40.9 gravity	1.40
41 to 41.9 gravity	1.43
42 to 42.9 gravity	1.46
43 to 43.9 gravity	1.49
44 to 44.9 gravity	1.52
45 to 45.9 gravity	1.55
46 to 46.9 gravity	1.58
47 to 47.9 gravity	1.61
48 to 48.9 gravity	1.64
49 to 49.9 gravity	1.67
50 to 50.9 gravity	1.70
51 to 51.9 gravity	1.73
52 and above	1.76

NORTH AND CENTRAL TEXAS

Ranger, North Texas, Mexia, Powell, Richland, Wortham, Currie, Moran, Nocona and Lytton Springs Crude

(Humble Oil and Refining Company and Gulf Refining Company)*

	June 13 1928
Below 25 gravity	.76
25 to 25.9 gravity	.81
26 to 26.9 gravity	.86
27 to 27.9 gravity	.91
28 to 28.9 gravity	.96
29 to 29.9 gravity	1.01
30 to 30.9 gravity	1.06
31 to 31.9 gravity	1.11
32 to 32.9 gravity	1.16
33 to 33.9 gravity	1.19
34 to 34.9 gravity	1.22
35 to 35.9 gravity	1.25
36 to 36.9 gravity	1.28
37 to 37.9 gravity	1.31
38 to 38.9 gravity	1.34
39 to 39.9 gravity	1.37
40 to 40.9 gravity	1.40
41 to 41.9 gravity	1.43
42 to 42.9 gravity	1.46
43 to 43.9 gravity	1.49
44 to 44.9 gravity	1.52
45 to 45.9 gravity	1.55
46 to 46.9 gravity	1.58
47 to 47.9 gravity	1.61
48 to 48.9 gravity	1.64
49 to 49.9 gravity	1.67
50 to 50.9 gravity	1.70
51 to 51.9 gravity	1.73
52 and above	1.76

*Humble's postings stop at 44 and above, at $1.52.

NORTH AND CENTRAL TEXAS

(The Texas Company and Magnolia Petroleum Company)*

24 to 24.9 gravity	.76
25 to 25.9 gravity	.81
26 to 26.9 gravity	.86
27 to 27.9 gravity	.91
28 to 28.9 gravity	.96
29 to 29.9 gravity	1.01
30 to 30.9 gravity	1.06
31 to 31.9 gravity	1.11
32 to 32.9 gravity	1.16
33 to 33.9 gravity	1.19
34 to 34.9 gravity	1.22
35 to 35.9 gravity	1.25
36 to 36.9 gravity	1.28
37 to 37.9 gravity	1.31
38 to 38.9 gravity	1.34
39 to 39.9 gravity	1.37
40 to 40.9 gravity	1.40

	June 13 1928
41 to 41.9 gravity	1.43
42 to 42.9 gravity	1.46
43 to 43.9 gravity	1.49
44 to 44.9 gravity	1.52
45 to 45.9 gravity	1.55
46 to 46.9 gravity	1.58
47 to 47.9 gravity	1.61
48 to 48.9 gravity	1.64
49 to 49.9 gravity	1.67
50 to 50.9 gravity	1.70
51 to 51.9 gravity	1.73
42 and above	1.76

*Magnolia Petroleum Company posts the schedule below on oil below 30 gravity and from 30 gravity up to 31.9. Beginning with 32 to 32.9, Magnolia's posting is the same as that of The Texas Company.

Below 30 gravity	.75
30 to 30.9 gravity	.90
31 to 31.9 gravity	1.05

Corsicana heavy is $1.00 posted by Magnolia.

SOUTH TEXAS

Mirando	1.00

SOMERSET

Grayburg

Below 33 gravity	1.05
33 to 33.9 gravity	1.07
34 to 34.9 gravity	1.09
35 to 35.9 gravity	1.11
36 to 36.9 gravity	1.13
37 to 37.9 gravity	1.15
38 and above	1.17

GULF COAST

Grade "A" all companies	1.20
Gulf Coast Light Oil, below 25	1.15
25 to 25.9 gravity	1.17
26 to 26.9 gravity	1.19
27 to 27.9 gravity	1.21
28 to 28.9 gravity	1.23
29 to 29.9 gravity	1.25
30 to 30.9 gravity	1.27
31 to 31.9 gravity	1.29
32 to 32.9 gravity	1.31
33 to 33.9 gravity	1.33
34 to 34.9 gravity	1.35
35 to 35.9 gravity	1.37
36 to 36.9 gravity	1.39
37 to 37.9 gravity	1.41
38 to 38.9 gravity	1.43
39 to 39.9 gravity	1.45
40 and above	1.47

*Humble Oil & Refining Company's postings on Gulf Coast Light stop at 35 to 35.9. Its price on all crudes above 35 to $1.37 per barrel.

Magnolia Petroleum Company's postings stop at 31 to 31.9.

CALIFORNIA CRUDE OIL PRICES AT THE WELL

Following are the current prices offered by Standard Oil Company for crude oil at the well: (Price per barrel of 42 gallons in fields indicated.)

Gravity (degrees)	Signal Hill	Seal Beach	Huntington Beach	Inglewood	Olinda-Brea Canon	Athens-Rosecrans Dominguez	Torrance	Richfield	Whittier La Harbra	Montebello	Coyotte Hill	Santa Fe Springs	Newhall McKittrick Kern River	Midway Sunset Elk Hills	Buena Vista Hills	Lost Hills	Coalinga	Wheeler
14-14-9	$ .85	$ .85	$ .85	$ .85	$ .85	$ ..	$ .85	$ .85	$ .85	$ .85	$ .85	$ ..	$ .75	$ .75	$ .75	$ .75	$ .75	$ .75
15-15-9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75
16-16-9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75
17-17-9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75
18-18-9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75
19-19-9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75
20-20-9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	..	..	.77	.77	.77	.76	.76
21-21-9	.86	.86	.86	.86	.86	..	.86	.86	.85	.85	.86	.85	..	.79	.79	.79	.77	.77
22-22-9	.87	.87	.87	.87	.87	..	.87	.87	.85	.85	.87	.85	..	.81	.81	.81	.78	.78
23-23-9	.88	.88	.88	.88	.88	..	.88	.88	..	.85	.88	.85	..	.83	.83	.83	.79	.79
24-24-9	.89	.89	.89	.89	.89	..	.89	.89	..	.85	.89	.85	..	.85	.85	.85	.80	.80
25-25-9	.90	.90	.90	.90	.90	.90	.90	.90	..	.86	.90	.86	..	.87	.87	.87	.81	.81
26-26-9	.92	.92	.92	.92	.92	.92	.92	.92	..	.87	.91	.87	..	.89	.89	.89	.83	.82
27-27-9	.94	.94	.94	.94	.94	.94	.94	.94	..	.88	.92	.88	..	.91	.91	.91	.85	.83
28-28-9	.96	.96	.96	.96	.96	.96	.96	.96	..	.89	.93	.89	..	.93	.93	.93	.87	..
29-29-9	.98	.98	.98	..	.98	.98	..	1.00	..	.91	.95	.93	..	.99	.99	.99	.91	..
30-30-9	1.00	1.00	1.00	..	1.00	1.00	..	..	..	..	..	.95	..	1.02	1.02	1.02	.93	..
31-31-9	1.03	1.03	1.03	..	..	1.03	..	..	..	..	..	.97	..	1.05	1.05	1.05	.95	..
32-32-9	1.06	1.06	1.06	..	..	1.06	..	..	..	..	..	.99	..	1.08	1.08	1.08	.97	..
33-33-9	..	..	..	..	..	1.09	..	..	..	..	..	1.01	..	..	..	1.11	.99	..
34-34-9	..	..	..	..	..	1.12	..	..	..	..	..	1.03	..	..	..	..	1.01	..
35-35-9	..	..	..	..	..	1.15	..	..	..	..	..	1.06	..	..	..	..	..	..
36-36-9	..	..	..	..	..	1.18	..	..	..	..	..	1.09	..	..	..	..	..	..
37-37-9	..	..	..	..	..	1.21	..	..	..	..	..	1.12	..	..	..	..	..	..
38-38-9	..	..	..	..	..	1.24	..	..	..	..	..	1.15	..	..	..	..	..	..
39-39-9	..	..	..	..	..	1.27	..	..	..	..	..	..	..	..	..	..	..	..
40-40-9	..	..	..	..	..	1.30	..	..	..	..	..	..	..	..	..	..	..	..
41-41-9	..	..	..	..	..	1.33	..	..	..	..	..	..	..	..	..	..	..	..
42-42-9	..	..	..	..	..	1.36	..											

Authorized Dealer

SINCLAIR OPALINE MOTOR OIL
REG. U.S. PAT. OFF

Seals Power at every Degree of Wear

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... you ask a motorist, when he drives in, "What's your mileage?" Then you consult the Sinclair Recommendation Index and you give him the correct grade of Opaline he needs—whether his car is new, whether it has travelled 2,000 miles, 12,000 miles, or over!

... that grade of Opaline will fit the degree of *wear* in his engine. It will seal the pistons and prevent power from blowing by!

... that's the *extra* service Opaline gives a motorist — the *extra* service *YOU* give him. And he'll come back for more!

... the right *grade* of motor oil is just as important as the right *quality*. The Authorized Opaline Dealer gives a motorist *both*. May we tell you the added advantage of selling such a favorably known, nationally advertised brand?

SINCLAIR REFINING COMPANY, INC.

Also Makers of Sinclair Gasoline and H-C Gasoline

45 NASSAU STREET, NEW YORK

Atlanta Boston Chicago Houston Kansas City

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	June 13 1928
The Texas Company	
MARKHAM	
All grades	1.00
LULING	
All grades	1.00
PANHANDLE	
GRAY COUNTY	
(Humble Oil and Refining Company, Magnolia Petroleum Company and Gulf Refining Company)	
Below 27 gravity	.60
27 to 27.9 gravity	.65
28 to 28.9 gravity	.70
29 to 29.9 gravity	.75
30 to 30.9 gravity	.80
31 to 31.9 gravity	.85
32 to 32.9 gravity	.90
33 to 33.9 gravity	.93
34 to 34.9 gravity	.96
35 to 35.9 gravity	.99
36 to 36.9 gravity	1.02
37 to 37.9 gravity	1.05
38 to 38.9 gravity	1.08
39 to 39.9 gravity	1.11
40 to 40.9 gravity	1.14
41 to 41.9 gravity	1.17
42 to 42.9 gravity	1.20
43 to 43.9 gravity	1.23
44 and above	1.26
WHEELER COUNTY	
(Humble Oil and Refining Company and Magnolia Petroleum Company)	
Below 29 gravity	.60
29 to 29.9 gravity	65
30 to 30.9 gravity	.70
31 to 31.9 gravity	.75
32 to 32.9 gravity	.80
33 to 33.9 gravity	.83
34 to 34.9 gravity	.86
35 to 35.9 gravity	.89
36 to 36.9 gravity	.92
37 to 37.9 gravity	.95
38 to 38.9 gravity	.98
39 to 39.9 gravity	1.01
40 to 40.9 gravity	1.04
41 to 41.9 gravity	1.07
42 to 42.9 gravity	1.10
43 to 43.9 gravity	1.13
44 and above	1.16
CARSON-HUTCHINSON COUNTIES	
(Humble Oil and Refining Company, Magnolia Petroleum Company and Gulf Refining Company)	
Below 31 gravity	.60
31 to 31.9 gravity	.65
32 to 32.9 gravity	.70
33 to 33.9 gravity	73
34 to 34.9 gravity	.76
35 to 35.9 gravity	.79
36 to 36.9 gravity	.82
37 to 37.9 gravity	.85
38 to 38.9 gravity	.88
39 to 39.9 gravity	.91
40 to 40.9 gravity	.94
41 to 41.9 gravity	.97
42 to 42.9 gravity	1.00
43 to 43.9 gravity	1.03
44 and above	1.06
WEST TEXAS	
(Humble, Gulf, Magnolia, The Marland Company and Southern Crude Oil Purchasing Company)*	
Crane- Upton, Crockett, Pecos and Winkler Counties, all grades	.60

*Gulf does not post in Winkler County; Magnolia posts only in Crane and Upton Counties; The Marland Company, post only in Crane, Upton and Crockett Counties; Southern posts only in Crane, Upton and Winkler Counties.

(Magnolia Petroleum Company)	
Mitchell County	$ .80
Howard-Glasscock County (shallow)	.80
Howard-Glasscock County (deep)	.60
Col-Tex Refining Comp.	
Howard and Mitchell Counties	$ .80
WYOMING-MONTANA	
Wyoming	
Byron	1.33
Ferris	1.60
Elk Basin	1.33
Grass Creek	1.33
Rock Creek	1.25
Lost Soldier	.95
Lance Creek	1.33
Mule Creek	1.10
Notches	.65
Big Muddy	1.25
Osage	1.33
Hamilton Dome	.85
Pilot Butte	1.75
Torchlight-Greybull	1.33
Lander	.80
Simpson Ridge	.80
Rex Lake	1.10
South Casper Creek-Poison Spider	1.00
Salt Creek	
Midwest Refining Company	
29 to 29.9 gravity	1.14
30 to 30.9 gravity	1.16
31 to 31.9 gravity	1.18
32 to 32.9 gravity	1.20
33 to 33.9 gravity	1.22
34 to 34.9 gravity	1.24
35 to 35.9 gravity	1.26
36 to 36.9 gravity	1.28
37 and above	1.30
MONTANA	
Sunburst	$1.65
Cat Creek	1.33
Lake Basin	2.20
NEW MEXICO	
Artesia	1.00
Hogback	1.38
CANADA	
Oil Springs	2.02
Petrolia	1.95
LOUISIANA-ARKANSAS	
(All Companies)*	
Homer, Haynesville, Caddo, El Dorado, De Soto and Crichton and Cotton Valley**	
Below 28 gravity	.91
28 to 28.9 gravity	.96
29 to 29.9 gravity	1.01
30 to 30.9 gravity	1.06
31 to 31.9 gravity	1.11
32 to 32.9 gravity	1.16
33 to 33.9 gravity	1.19
34 to 34.9 gravity	1.22
35 to 35.9 gravity	1.25
36 to 36.9 gravity	1.28
37 to 37.9 gravity	1.31
38 to 38.9 gravity	1.34
39 to 39.9 gravity	1.37
40 to 40.9 gravity	1.40
41 to 41.9 gravity	1.43
42 to 42.9 gravity	1.46
43 to 43.9 gravity	1.49
44 to 44.9 gravity	1.52
45 to 45.9 gravity	1.55
46 to 46.9 gravity	1.58
47 to 47.9 gravity	1.61
48 to 48.9 gravity	1.64
49 to 49.9 gravity	1.67
50 to 50.9 gravity	1.70
51 to 51.9 gravity	1.73
52 and above	1.76

*Shreveport-Eldorado's postings stop at above 40 gravity.

**Below 36 gravity, the posting on Cotton Valley is 75 cents. From 36 to 52 and above the regular gravity schedule is followed.

STEPHENS	
(All Companies)	
Below 28	.85
28 to 28.9 gravity	.87
29 to 29.9 gravity	.89
30 to 30.9 gravity	.91
31 to 31.9 gravity	.93
32 and above	.95
SMACKOVER	
(All Companies)	
Below 24 gravity	.7[illegible]
24 and above	.[illegible]
Bellevue	1.25
Jennings	1.15
Vinton	1.30
Edgerly	1.30
Starks Dome	1.30
Urania	.75
Calion	.75

IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS

American Petroleum Institute Figures (Barrels of 42 gallons)

	Total Month May	Total Month April	Week End'd June 2	Week End'd May 26
AT ATLANTIC COAST PORTS—				
Baltimore	868,000	548,000	158,000	225,000
Boston	218,000	174,000	77,000	70,000
New York	3,332,000	3,724,000	588,000	768,000
Philadelphia	996,000	996,000	377,000	274,000
Others	680,000	1,082,000	139,000	229,000
Total	6,094,000	6,524,000	1,339,000	1,566,000
Daily Average	196,581	217,467	191,286	223,714
AT GULF COAST PORTS—				
Galveston District	120,000	280,000	40,000	.....
New Orleans and Baton Rouge	745,000	704,000	187,000	*235,000
Port Arthur and Sabine District	.....	65,000	.....	.....
Tampa	59,000	4,000	.....	.....
Total	924,000	1,053,000	227,000	235,000
Daily Average	29,807	35,100	32,429	33,572
AT ALL UNITED STATES PORTS—				
Total	7,018,000	7,577,000	1,566,000	1,801,000
Daily Average	226,388	252,567	223,715	257,286

*Revised.

RECEIPTS OF CALIFORNIA OIL AT ATLANTIC AND GULF COAST PORTS

American Petroleum Institute Figures (Barrels of 42 gallons)

	Total Month May	Total Month April	Week End'd June 2	Week End'd May 26
AT ATLANTIC COAST PORTS—				
Baltimore	600,000	271,000	213,000	78,000
Boston	167,000	215,000	.....	80,000
New York	607,000	724,000	75,000	80,000
Philadelphia	509,000	545,000	.....	58,000
Others	148,000	236,000	78,000	.....
Total	2,031,000	1,991,000	366,000	296,000
Daily Average	65,516	66,367	52,286	42,286
AT GULF COAST PORTS—				
Daily Average	.....	.....	.....	.....
TOTAL ATLANTIC & GULF COAST PORTS	2,031,000	1,991,000	366,000	296,000
Daily Average	65,516	66,367	52,286	42,286
DISTRIBUTION OF TOTAL CALIFORNIA OIL RECEIPTS IS AS FOLLOWS:				
Crude	247,000	413,000	78,000	.....
Gasoline	1,310,000	1,388,000	288,000	238,000
Gas Oil	241,000	60,000	.....	.....
Fuel Oil	175,000	72,000	.....	.....
Lubricating Oil	58,000	58,000	.....	58,000
Total	2,031,000	1,991,000	366,000	296,000

COMPLETIONS FOR PAST WEEK IN U.S. FIELDS

SUMMARIZED REVIEW OF FIELD RESULTS

State—	Completions This Week	Completions Last Week	Producers This Week	Producers Last Week	Gas Wells This Week	Gas Wells Last Week	Failures This Week	Failures Last Week	Initial Production This Week	Initial Production Last Week
Arkansas	13	7	11	5	..	1	2	1	18,151	9,965
California	22	..	22	..	..	..	..	..	28,950	.....
Colorado	..	2	..	2	..	..	..	..	....	700
Illinois	2	1	2	1	..	..	..	..	60	1
Kansas	35	14	15	3	3	2	17	9	1,537	590
Indiana	1	3	..	3	..	..	1	..	....	125
Kentucky	26	31	18	24	3	..	5	7	1,073	507
Louisiana	33	13	6	4	11	3	16	6	7,250	5,750
Michigan	3	..	3	..	..	..	..	..	550	....
Montana	..	6	..	5	..	1	..	..	....	2,161
Ohio	21	9	9	5	4	2	8	2	335	530
Oklahoma	60	70	21	31	8	5	31	34	14,651	21,908
Pennsylvania	..	3	..	..	..	3	..	..	....	....
Texas	123	117	66	64	2	9	55	44	103,239	70,357
West Virginia	23	26	2	4	18	14	3	8	26	59
Wyoming	..	2	..	2	..	..	..	..	....	849
Totals	340	304	153	153	49	40	138	111	175,822	113,501
Increase this week	36	..	..	..	..	..	27	..	62,321	.....
Decrease this week	..	..	..	..	1	..	..	..	....	....

OKLAHOMA

Company, Well and Location	Initial Production Bbls.	Depth
CARTER COUNTY—		
Schermerhorn et al, Crockett 4, nw ne sw, 23-1s-3w	400	2540
Magnolia Pet. Co., Ragsdale 1, swc, 5-2s-3w	*	4066
Ratliff 3, ne nw sw, 29-1s-3w	*	4015
COTTON COUNTY—		
Jenkins ea al, Smith 2, nwc sw se se, 34-1s-10w	*	2612
CREEK COUNTY—		
Elson, Detrick et al, Morton 1, sec ne sw, 27-14-10e	35	3318
Madden & Madden et al, Farmer 1, swc nw se, 13-15-9e	720	3399
J. A. Hull, Walker 1, swc, 21-18-9e	55	2625
S. J. Smith, Unallotted 1, swc nw se, 33-18-11e	*	2025
Creekmore et al, Gillis 2, sec nw nw, 14-16-11e	*	2870
GRADY COUNTY—		
Magnolia Pet. Co., Smith 4, nec, 11-4n-8w	¶3	2423
Heathley 4, cwl n½ sw ne, 2-4n-8w	¶34	2400
Okla. Gas Utilities Co., Farwell 9, se ne sw, 26-5n-8w	¶37	2410
Wirt Franklin Pet. Corp., Cox 1, nw ne sw, 17-4n-6w	*	2812
GRANT COUNTY—		
Northern Counties Gas Co., Martin 3, nw sw sw, 23-27-3w	¶1	4200
JEFFERSON COUNTY—		
Beck et al, Ryan 1, nw se ne, 23-6s-6w	*	2270
KAY COUNTY—		
Blackwell O. & G. Co., Janke 1, c se sw, 11-28-1w	*	855
McGraw & Burnham, Alberty 1, c se se, 32-29-1e	*	1460
KINGFISHER COUNTY—		
Galt-Brown Oil Co., Johnson 1, c nw, 26-16-5w	*	4512
MURRAY COUNTY—		
Gilcrease Oil Co. etal, Wolfe 1, sec ne, 20-1n-2e	*	1964
MUSKOGEE COUNTY—		
Scotch Oil Co., Crabtree 1A, sec nw ne, 2-14-18e	15	1135
W. R. Sommerville, Carver 2, sec ne ne se, 4-13-19e	*	1560
A. E. Carder & Crittenden 2, nwc ne nw ne, 6-14-19e	*	862
S. Threlkeld, Cobb 2, sec sw nw sw, 6-14-19e	*	855
Hale Ford Oil Co., Clark 6, cwl e½ nw se, 6-14-19e	*	514
C. M. Whaley et al, Crittenden 2, swc se ne, 6-14-19e	*	822
R. H. Kimsey, Sanders 2, sec ne se ne, 1-14-18e	*	588
OKFUSKEE COUNTY—		
Champlin Oil & Ref. Co., Jacobs 9, sec sw se, 15-11-11e	400	3493
OKMULGEE COUNTY—		
A. G. Hazlett et al, Fields 3, cwl nw ne, 33-13-13e	¶10	1403
M. S. Mussellem, Flint 16, cwl ne sw, 26-14-14e	10	1120
J. E. Wallace, Colbert 4, sec sw ne, 14-14-14e	15	1063
Devonian Oil Co. and Indep. Oil & Gas Co., Wisner 8, c sw se, 7-15-13e	*	3025
OSAGE COUNTY—		
W. J. Knupp 7, cwl e½ sw, 36-27-11e	2	1590
Kewanee Oil & Gas Co. 4, se nw sw, 21-27-6e	60	2945
Pueblo Pet. Co. 1, nwc se se sw, 14-21-8e	*	2397
R. L. Berlin 12, nwc ne nw nw, 24-29-10e	*	1260
PAYNE COUNTY—		
Home Gas Co., Pearson 2, nec se sw, 23-18-5e	*	4145
PONTOTOC COUNTY—		
O. K. Portland Cement Co., Starritt 1, nw ne se, 23-4n-7e	¶5	661
Barber Oil Co., Mount 1, se ne nw, 36-5n-7e	100	2375
W. E. McGraw, Reed 1, nec nw, 6-3n-7e	*	1430
POTTAWATOMIE COUNTY—		
Pierce Oil Corp., Ward 1, nec sw, 30-7-4e	¶1	3970
Magnolia Pet. Co., Green 1, swc nw, 13-7-4e	56	4148
Gypsy Oil Co., State 1, ne nw ne, 16-9-5e	240	4355
Davis, Detrick et al, McGahey 1, sec nw, 10-6-2e	*	4988
I. T. I. O. Co., White 1, nwc se, 21-7-5e	*	4175
Gypsy Oil Co., Sullivan 5, sw ne se, 25-7-3e	*	4554
SEMINOLE COUNTY—		
T. B. Slick, Williams 1, ne se ne, 15-7-6e	3695	4333
Barnsdall Oil Co., Ingram 8, ne nw sw, 1-9-5e	611	4431
Mid-Continent Pet. Corp., Saloche 5, swc, 33-10-6e	960	4326
Roxana Pet. Corp., Hotulke 1, nec nw, 23-7-6e	6560	4316
McCullough Oil Co., Coody 1, se sw se, 18-9-7e	45	4167
The Texas Co., Hyde 2, sw nw sw, 8-5-8e	400	2655
Gypsy Oil Co., Peter 2, ne se nw, 18-5e-8e	227	2714
STEPHENS COUNTY—		
Clark & Cowden, William 1, ne nw se, 31-1n-8w	¶6	1865
Maer & Staniforth, Renes 1, sw nw nw, 7-2s-7w	*	2303
Winkler & McQueen, Hite 1, swc ne, 35-1s-8w	*	2623
TEXAS COUNTY—		
Connelly, Trammell & Danner, Tansey 1, sec nw, 5-1n-19w	*	280
Graves 1, ne sw sw, 23-2n-18e	*	315
TULSA COUNTY—		
Sand Springs Home, Jones 1, nw ne, 15-19-11e	45	1698
Ellen Oil & Gas Co., Island 5, swc nw ne ne ne, 25-18-14e	*	1305
WAGONER COUNTY—		
Crosbie et al, Grayson 5, nec se, 15-16-14e	*	2560

KANSAS

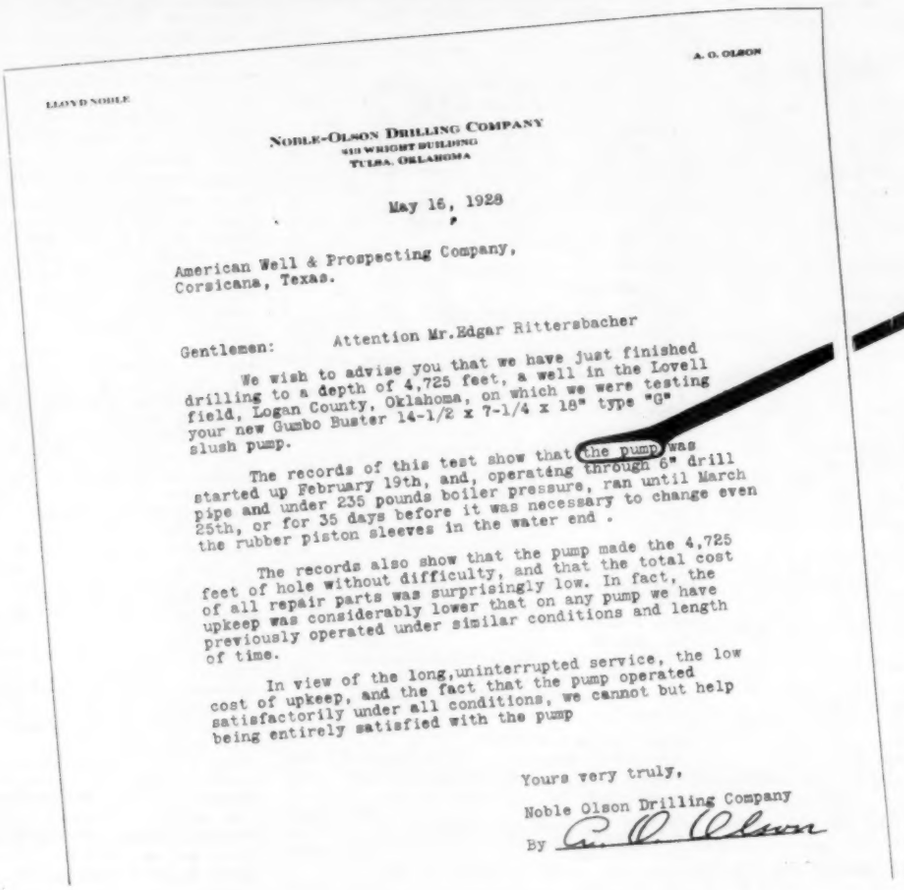
Company, Lease and Location	Initial Production Bbls.	Total Depth
BUTLER COUNTY—		
Empire O. & R. Co., Cranston 2, nwc se se, 22-27-5e	50	2768
Rogers et al, Drum-Bitler 17, swc se ne, 20-26-8e	*	1625
Reynolds et al, Colbert 1, swc se nw, 36-27-5e	*	....
Empire O. & R. Co., Marshall 1, nwc sw nw, 22-27-6e	*	3055
Burford & Brimm, Ferris 1, sec ne sw, 21-28-8e	*	....
COFFEY COUNTY—		
Finney et al, Mitchell 1, sec ne, 8-22-14e	¶2	1365
ELK COUNTY—		
Sherman et al, Baker 1, swc nw nw nw, 10-31-10e	100	2014
GREENWOOD COUNTY—		
Transcontinental Oil Co., Pixlee 3, nwc ne ne, 10-22-10e	125	2247
Empire G. & F. Co., Ott 9-A, swc ne nw, 25-22-12e	215	1714
Schwab 12, nec sw ne, 25-22-12e	160	1740
Skelly Oil Co., Schwab 3, sec sw ne, 30-22-13e	260	1718
Sheedy et al, Gilroy 1, swc se, 12-25-12e	12	1377
Hood et al, Butler 2, c ne se, 15-26-11e	¶3	645
Hawley et al, Pederson 1, nec sw, 4-26-13e	¶3	1532
Shaffer & Howell, Schwab 1, nwc sw se, 30-22-13e	*	1717
Nathan et al, South 1, nec nw se, 36-23-10e	*	....
McCready Oil Co., Gustin 1, sec sw, 34-25-13e	*	1517
Swanson et al, Hayes 1, sec nw ne, 1-28-12e	*	1600
MARION COUNTY—		
Givens et al, McCoy 1, swc se ne, 14-17-4e	435	2360
Phillips Pet. Co., Boyington 1, nec se nw, 15-17-4e	5	2404
Franks 2, swc se se, 15-17-4e	40	2440
Skelnar 1, nec nw sw, 23-17-4e	30	2397
Indep. O. & G. Co., Mowrer 1, sec sw se, 15-17-4e	60	2465
Skelly Oil Co., Reznicek 1, swc nw nw, 22-17-4e	*	2456
Phillips Pet. Co., Thompson 1, nwc se, 26-17-4e	*	2475
Shearer, Braden et al, Wright 1, swc nw se, 14-18-4e	*	2394
Skow et al, Fronta 1, swc ne, 21-18-4e	*	....
MORRIS COUNTY—		
Lambert O. & G. Co., Southard 1, swc se, 22-16-9e	*	....
WOODSON COUNTY—		
Harper Oil Co., Peek 2, csl sw sw, 16-23-14e	20	1645
Pure Oil Co., Peek 7, sec ne ne, 20-23-14e	25	1645
Peterson et al, Andrews 1, sec sw sw, 31-23-16e	10	1506
Fees et al, Roberts 1, nwc ne, 3-24-16e	*	1418
Lamar & Hane, Peaske 1, nwc sw, 25-25-13e	*	....
Fields et al, Atkins 1, sec sw, 19-25-14e	*	1534
La Dow et al, Settlemeyer 1, nwc ne se, 25-26-14e	*	1543

"Gumbo Buster"

CREW NOBLE OLSON DRILLING CO.

From left to right:

A. O. Olson, Unknown,
L. T. Robertson, Pete Kemnitz,
Jim Conspercey, Lloyd Noble,
A. A. Kemnitz, H. F. Dean,
Carl Schall, C. Jensen,
Glen Kemnitz, R. Rikle,
H. S. Iske, C. R. Johnson,



A. O. OLSON

LLOYD NOBLE

NOBLE-OLSON DRILLING COMPANY
918 WRIGHT BUILDING
TULSA, OKLAHOMA

May 16, 1928

American Well & Prospecting Company,
Corsicana, Texas.

Gentlemen: Attention Mr.Edgar Rittersbacher

We wish to advise you that we have just finished drilling to a depth of 4,725 feet, a well in the Lovell field, Logan County, Oklahoma, on which we were testing your new Gumbo Buster 14-1/2 x 7-1/4 x 18" type "G" slush pump.

The records of this test show that the pump was started up February 19th, and, operating through 6" drill pipe and under 235 pounds boiler pressure, ran until March 25th, or for 35 days before it was necessary to change even the rubber piston sleeves in the water end .

The records also show that the pump made the 4,725 feet of hole without difficulty, and that the total cost of all repair parts was surprisingly low. In fact, the upkeep was considerably lower that on any pump we have previously operated under similar conditions and length of time.

In view of the long,uninterrupted service, the low cost of upkeep, and the fact that the pump operated satisfactorily under all conditions, we cannot but help being entirely satisfied with the pump

Yours very truly,
Noble Olson Drilling Company
By C. O. Olson

Noble Olson Drilling Co. have since purchased two more Type "G" Gumbo Buster Pumps

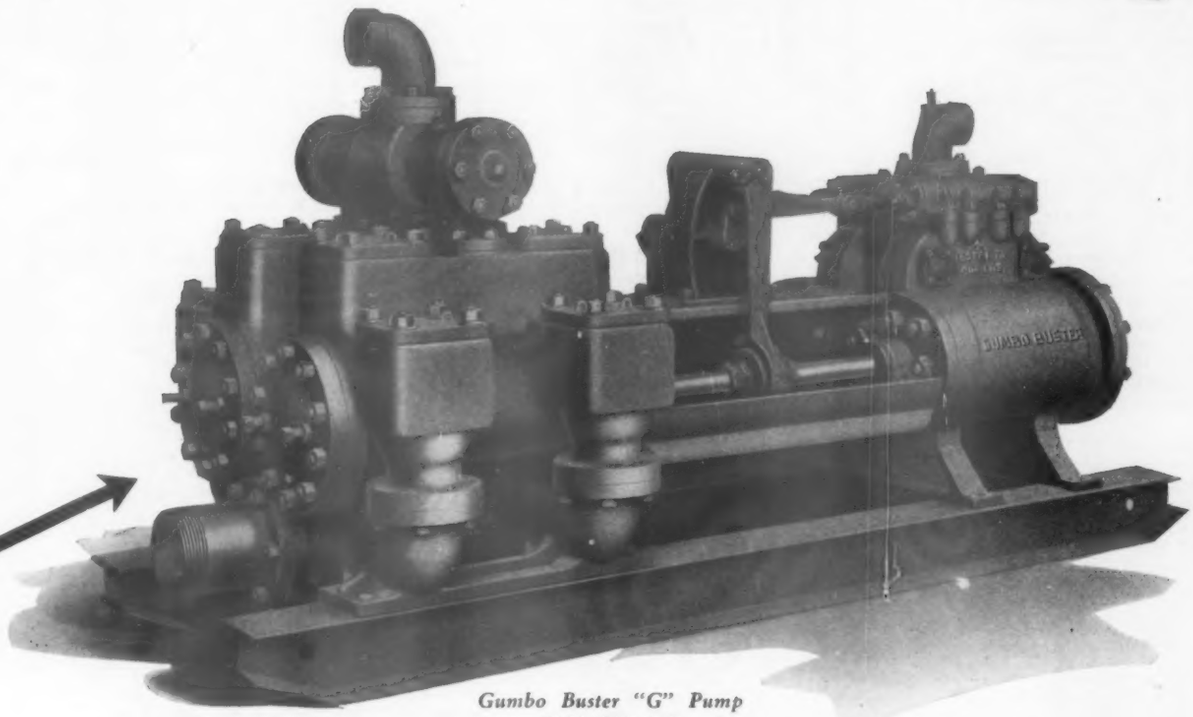
Republic Supply Company

General Offices: Houston, Texas

OIL AND GAS WELL SUPPLIES
ROTARY AND CABLE TOOLS

OKLAHOMA TEXAS ARKANSAS LOUISIANA

New "G" Pump



Gumbo Buster "G" Pump
14½x7¼x18"

ADVANTAGES

1. SIZE—Diameter of steam end 14½"; Diameter of water cylinder 7¼"; Length of stroke 18".
2. WEIGHT—Weighs only 10,700 pounds. Lightest pump of similar size and use.
3. STRENGTH—Water end made from *Chrome Nickel Cast Electric Steel.* Strong enough to safely withstand any pressure up to 2,000 pounds. Water end and steam end riveted to strong steel skids in ten different places.

Due to long 18" stroke, pump runs slowly, which reduces wear on all moving parts, which in turn reduces cost of upkeep.

WATER END ADVANTAGES:

1. LIGHT WEIGHT.
2. STRONG.
3. WATER END MADE IN FOUR PIECES.
   Not necessary to throw entire water end away, should anything happen such as cutting out around valve seats.
4. ACCESSIBILITY.
   Every part conveniently located so repairs can be easily and quickly made.

STEAM END ADVANTAGES:

1. PATENTED BALANCED PISTON VALVES.
   Patented rings fit closer and wear longer than ordinary rings.
2. CONVENIENTLY LOCATED AND PROTECTED CUSHION VALVES.
   Cushion valves regulate and lengthen stroke.
3. STEAM END MADE IN FOUR PIECES.
   Piston valve cylinders, steam cylinders, housing or cradle and steam end legs are separate castings. Any piece can be replaced.
4. TWO LEGS UNDER STEAM END FOR STRENGTH.

SOLD ONLY BY

Republic Supply Company

General Offices: Houston, Texas

OIL AND GAS WELL SUPPLIES
ROTARY AND CABLE TOOLS

OKLAHOMA TEXAS ARKANSAS LOUISIANA

EASTERN STATES

WEST VIRGINIA

LINCOLN COUNTY—
Hobbs Bros. & Co., Henry Hrs 1.. ½¶ ....
Russell Gas Co., Cooper 2 ..... ½¶ ....
L. R. Sweetland, Sweetland 32 .... ½¶ ....
RITCHIE COUNTY—
J. F. Deem & Co., Lingler 4.... ¶¼ ....
L. P. Bickel, Beckner 1..... ¶6 ....
Aetna O. & G. Co., Johnson 1.... * ....
ROANE COUNTY—
South Penn Oil Co., Tallman 1.... 25 ....
Heck Oil Co., Vandervender 1..... ¶2 ....
LEWIS COUNTY—
Carnegie Nat. Gas Co., Smith 2....¶1¾ ....
Goodwin Bros., Swisher 1 .....¶1½ ....
MARION COUNTY—
Carnegie Nat. Gas Co., Hayhurst 1 * ....
Owens Bottle Mach Co., Evans & Collins 2 ..... ¶¼ ....
CALHOUN COUNTY—
F. F. McIntosh & Co., Morgan 1.. ¶¼ ....
Kingsbury & Dollman, Lynch 1.... * ....
KANAWHA COUNTY—
United Fuel Gas Co., Weaver 489.. 1 ....
HARRISON COUNTY—
Hope Nat. Gas Co., Hardman 2.... ¶¼ ....
C. & A. Oil Co., Waggoner 1 ..... ¶¼ 4065
MINGO COUNTY—
Red Jacket Cons. Cole & Coke Co., Fee 3 ..... ¶¾ ....
WETZEL COUNTY—
Cons. Gas Co., Morgan 2 ..... ¶2 ....
BOONE COUNTY—
Earl Cameron, Griffith 1..... ¶¾ ....
GILMER COUNTY—
Sears Oil & Gas Co., Campbell 2..¶1½ ....
DODDRIDGE COUNTY—
Mfrs. L. & H. Co., Strickland Hrs. 1 ¶¼ ....
JACKSON COUNTY—
Heck Oil Co., Shaffer 2 ..... ¶1 ....

KENTUCKY

WAYNE COUNTY—
Cooper & Miller, Ramsey 15..... 2 ....
ESTILL COUNTY—
Superior Oil Corp., Herndon 25.... 3 ....
Horn 31 ..... 4 ....
LEE-OWSLEY COUNTIES—
French, Frailey & Co., Akers 9.... * ....
WOLFE COUNTY—
Moxley & Giard, Kash 2..... 3 ....
JOHNSON-MAGOFFIN COUNTIES—
James Hartman, Scott 1 ..... 5 ....
ELLIOTT COUNTY—
G. D. Miller, Tr., Kazee 1 ..... 1 ....
FLOYD-KNOTT COUNTIES—
United Carbon Black Co., Prater 1 ¶1½ ....
Allen 1 ..... ¶2 ....
New Domain Oil & Gas Co., Allen 1 ¶2 ....
ALLEN COUNTY—
Mid-Southern Oil Co., Woods 21... 300 300
OHIO COUNTY—
J. C. Ellis & Co., Hoagland 7..... 300 ....
Daniels 50 acres 2 ..... 75 ....
Daniels 50 acres 1 ..... * ....
Daniels 50 acres 3 ..... 75 ....
Daniels 30 acres 5 ..... 50 ....
Cumberland Pet. Co., Hamilton 10.. 100 ....
Creek Drilling Co., Bartlett Hrs. 14 50 ....
DAVIESS COUNTY—
R. D. Hance & Co., Purcell 1..... 25 ....
Young & Goldberg, Parks 1 ..... 25 ....
Young & Co., Howard Bros. 1..... 10 ....
Eastern Gulf Oil Co., Murray 1.... 10 ....
Maxey, Lewis & Co., Barrett 1.... * ....
Eastern Gulf Oil Co., Ridgeway 1.. * ....
Ohio Oil Co., Igleheart 1 ..... 35 ....
Young, Goldberg & Co., Jones 1... * ....

SOUTHEASTERN OHIO

WASHINGTON COUNTY—
H. H. Henning & Co., Huntsman 3 10 1110
JEFFERSON COUNTY—
Cable Oil Co., Cooper 1 ..... 4 1420

CENTRAL OHIO

ASHLAND COUNTY—
Ohio Fuel Gas Co., Conrad 1..... 18 ....
Kennedy 1 ..... ¶2 ....
Logan Gas Co., Sharp 1 ..... ¶4 ....
Dempsey Bros., Gibson 1 ..... * ....
LICKING COUNTY—
A. H. Heisey Gas Co., Perry 1.... * 2700
W. L. Brown & Co., Chapin 5 .... 15 ....
Farmer & Rugg, Wright 4 ..... 8 ....

Company, Well and Location	Initial Production Bbls.	Total Depth
PERRY COUNTY—		
Wehrle Interests, Pletcher 4.....	155	3620
New Straitsville Oil & Gas Co., Marshall 1	*	1140
MUSKINGUM COUNTY—		
Ohio Valley Oil & Gas Co., Lane 1	*	3420
Hope Construction & R. Co., Butler 1	35	....
HOCKING COUNTY—		
Riggs Oil Co., Riggs 2	*	2939
Twin Hill O. & G., Lane 3.....	*	2911
GUERNSEY COUNTY—		
Davis Bros. & Co., Micha 5.....	50	3470
KNOX COUNTY—		
Reno Oil Co., Day 2	¶1	2980
MEDINA COUNTY—		
Ohio Fuel Gas Co., Hill 1.....¶1½		....
LORAIN COUNTY—		
Rogers & Rogers, Naegle 1.....	*	....
CUYAHOGA COUNTY—		
John Arthur, Donald 1	*	....

NORTHWESTERN OHIO

ALLEN COUNTY—
B. L. Carman & Co., Powell 2.... 40 1300

INDIANA

PIKE COUNTY—
Dilly & Katterhenrich, Smith 1.... * ....

ILLINOIS

LAWRENCE COUNTY—
Phipps, Blosser & Co., Desbaeuf 1.. 30 ....
CRAWFORD COUNTY—
One Sixth Oil Co., Evans 1..... 25 ....

MICHIGAN

MUSKEGON COUNTY—
Wolverine Dev. Co., Workman 1.. 250 1650
Lake Shore Pet. Co., DeVries 1.. 250 1700
Wa-je-sel Oil Co., Reeths 1..... 50 1700

ARKANSAS

OUACHITA COUNTY—
Skelly Oil Co., Umsted 10, 33-15-15 ..... 75 2364
UNION COUNTY—
Lion O. & R. Co., Rowland 3, 15-17-14 .....2500 3228
C. E. Murdock, Gregory 2, 10-17-14.4032 3198
Magna Prod. Co., Dumas 4, 11-17-14 .....1750 3275
Pure Oil Co., Gregory 1, 11-17-14..1500 3251
Gregory 3, 11-17-14 .....1000 3187
Gregory Estate 1, 15-17-14 .....5500 3210
J. M. Gregory 1, 11-17-14 ..... 750 3251
Gregory 5, 10-17-14 .....1000 3231
Dr. Rushing et al, Gregory 2, 11-17-14 ..... 30 3234
F. B. Wood, Tr's, Spahr 2, 34-15-16 ..... 14 2056

LOUISIANA

Company, Well and Location	Initial Production Bbls.	Total Depth
BOSSIER PARISH—		
Sligo Synd., Skannal 2, 14-17-12...	¶2	1715
Northwest La. Gas Co., Bolinger 2, 32-23-11	¶30	3028
Ark. Nat. Gas Co., Crawford 1, 6-22-11	¶6	3081
J. R. Bahan, Bolinger 1, 38-23-11..	¶25	3053
CADDO PARISH—		
Dixie Oil Co., Clark 9, 14-21-15...	165	3988
OUACHITA PARISH—		
Jordan-Drlg. Co., Cole 1, 50-18-4e..	¶4	2203
RICHLAND PARISH—		
Nat. G. & F. Corp., Thomasson C-3, 21-16-6e	¶60	2465
Thomasson C-4, 21-16-6e	¶50	2468
SABINE PARISH—		
Magnolia Pet. Co., Hall 1, 33-10-12..	60	3231
UNION PARISH—		
Carter & Goodwin, Hudson 1, 7-23-1e	25	2274
Industrial Gas Co., Lewis 1, 14-20-3e	¶4	2200
Harris 1, 24-20-3e	¶7	2188
WEBSTER PARISH—		
Woodley Pet. Co., Cox B-1, 23-21-10.	¶4	4737
Magnolia Pet. Co., Baker 2, 35-23-11	¶11	3078

SOUTH LOUISIANA

EVANGELINE—
Jennings Pet. Co., S. F. S. 2 .... * 1875
LOCKPORT—
Vacuum-Gulf, Lock-Moore 5 ..... * 5375

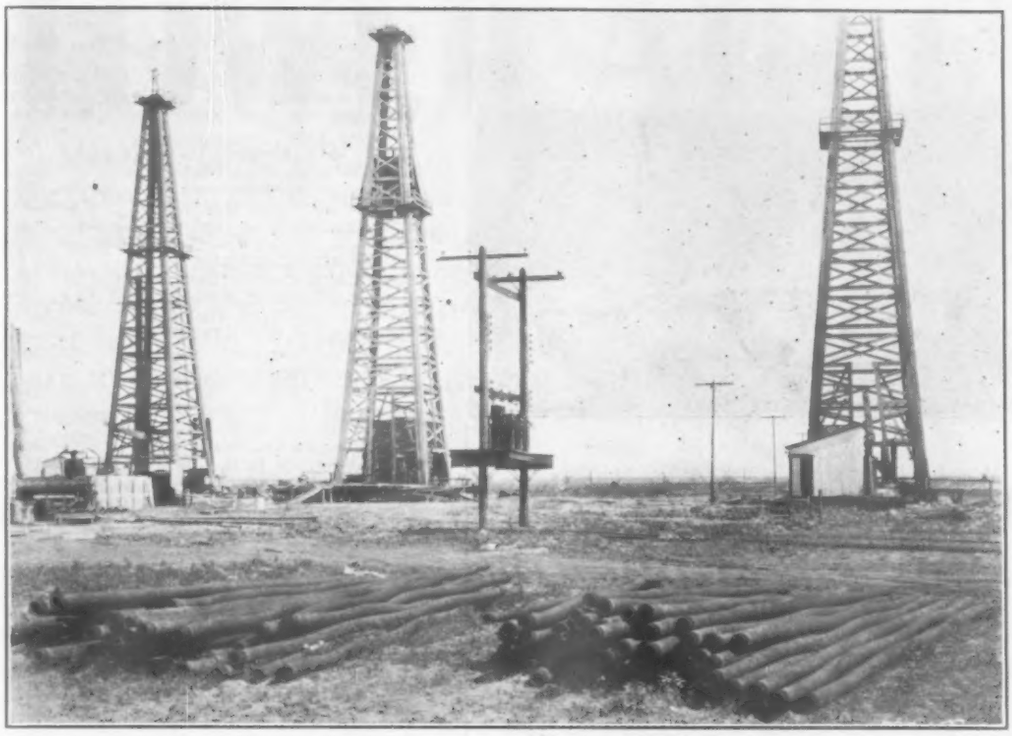
TEXAS

WEST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
CRANE COUNTY—		
Gulf Prod. Co., J. T. McElroy 50..1450		2886
HOWARD COUNTY—		
F-H-E Oil Co. & Moody Corp., Roberts 3-D	800	2708
Roberts 2-E	550	2727
Pure Oil Co., Chalk 4	130	1727
Bert Weekly et al, Roberts 1	20	3505
PECOS COUNTY—		
Matador Oil Co., Smith 1 2400		1708
Mazda Oil Corp. & Savoy Oil Co., Smith 2	600	1642
Mid-Kansas-Transcontinental, Yates 18-A 14,500		1405
HENDRICK FIELD—		
Atlantic & Collett-O'Keefe, Hendrick 3-F 15,000		2748
Hendrick 6-F 12,000		2756
Cranfill & Reynolds, Hendrick 1-D 12,000		2868
Gulf. Prod. Co., Hendrick 15.....4275		3077
Humble O. & R. Co., T. G. Hendrick, 5-C 6600		2850
Landreth & Roxana, Hendrick 1-C..2200		2860
Murchison Oil Co. and Cranfill Bros. Oil Co., Hendrick 1-H 6000		2875
Prairie O. & G. Co., Hendrick 1..10,000		2735
Pure Oil Co., Grisham-Hunter 11-B..1700		2925
Republic Prod. Co., Ida Hendrick 1-C 360		2860
Southern & R. A. Westbrook, Ida Hendrick 4-C-T-88 1300		3119

NORTH TEXAS

ARCHER COUNTY—
L. T. Burns & Humble, Taber 2.... * 1606
F. P. Cullum et al, Mankins 3..... * 674
J. A. Gardner et al, Turbeville 1.... * 1550
J. M. Howard et al, Wilson 2..... * 1085
T F. Hunter et al, Goodwin 1..... * 1420
G. Rowe & Atlantic, Logan 1..... * 1301
Sun Oil Co., Farmer 19 ..... * 1470
The Texas Co., Conner 1 ..... * 1209
CLAY COUNTY—
Manhattan Oil Co., Elmore 1 ..... * 800
Farrar 1 ..... * 944
COOKE COUNTY—
Grant & Pace, Embry 1 ..... * 1526
ELECTRA—
W. H. Hammon et al, McCarty 2-C 50 1361
McCarty 9-C 55 1370
J. E. Keller et al, J. L. Waggoner Bros. 1 ..... 40 1423
The Texas Co., Waggoner Bros. 1-B 25 1369
FOARD COUNTY—
Marland Prod. Co., Minnick 1 .... * 3016
K-M-A AND IOWA PARK—
Coleman & Coppock, K. & K. 11.. 45 858
Coleman-Coppock et al, Watkins 1.. * 1215
Holbrook & Wood, K. & K. 21.... 20 857
Magnolia Pet. Co., Allen-Kemp 1... 200 1221
W. B. Omohundro et al, W. W. Overby 1 ..... 10 805
W. W. Overby 2 ..... 10 695
MONTAGUE COUNTY—
Arco Oil Co., Maddox 4 ..... 30 942
R. I. Carter et al, Jones 2 ..... 15 790
Carter & Rycade Oil Corp., Heaton 1 * 856
THROCKMORTON COUNTY—
Reiter-Foster Oil Corp., Graham 3.. * 3964
WILBARGER COUNTY—
Consolidated Oil Co., Waggoner 1, (Sec. 5) 515 1857
J. S. Cosden & Co., Waggoner 1-L.. * 2613
Fain-McGaha Oil Corp., Waggoner 5 90 2307
Lawson et al, Waggoner 4-A 130 1900
Waggoner 3-B 350 2330
Phillips Pet. Co., Waggoner 2-Y.... 8 1874
Waggoner Ref Co., Waggoner 1-H..4000 2426
YOUNG COUNTY—
Allday Oil Corp., Drumm 1 ..... * 651
Canyon O. & G. Co., Stewart 2.... * 825
Cunningham et al, Hawkins 11..... 30 533
Madden & Hunt, McCrary 1..... * 1140
Morrison et al, Keen 2 ..... * 754
Pennell Oil Co., Boone 10 ..... 50 500
Perry et al, Burdick 1 ..... * 625
Reed & Wooten, Keen 2 ..... * 775
Riggs et al, Goldston 1 ..... * 2452
Paul Steed et al, Smith 1 ..... * 1065
The Texas Co., Stewart 8 ..... * 830
Wichita Prod. Co., Hamilton 4..... * 1030



PRODUCTION INSURANCE

The loss of a single string of tubing will often amount to more than the cost of equipping every well on your lease with an EVER READY PROTECTOR. And from the instant it is placed on the tubing the Ever Ready Protector becomes an integral part of the tubing itself, functioning from a positive action of the tubing and affording positive protection against damage to the tubing or well. The Ever Ready Protector is the only *adjustable* protector on the market. It eliminates the use of an anchor below the perforated pipe, thereby reducing from 50 to 80% the cost of pumping wells where ordinary equipment is used. Can be run in against high pressure and through fluid with comparative ease where other types have been known to fail. Tubing equipped with an Ever Ready Protector can be run and pulled with the same speed as tubing without protection of any kind.

Write for a complete Protector bulletin or see any Smith Separator representative for complete information.

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Fort Worth, Texas

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Shreveport, La.

CALIFORNIA OFFICE:
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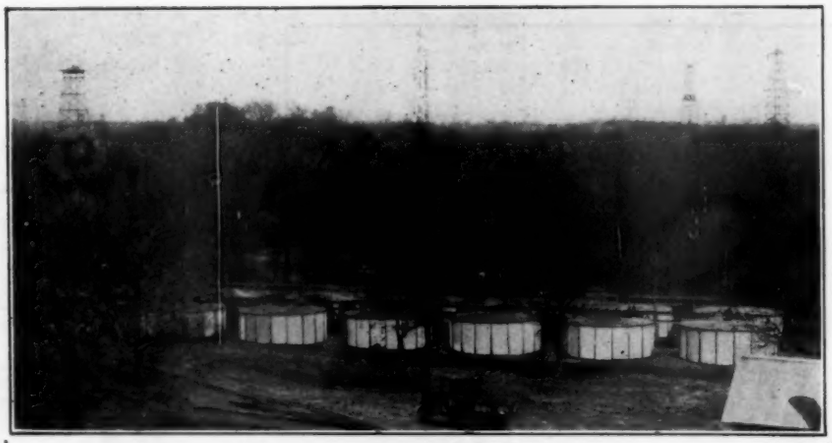
Los Angeles Calif.



Maloneys combine better materials with superior design—

The sheet steel used in MALONEYS is the most durable known—rust resisting Keystone Copper Steel. Our specially heat treated bolts are 35 per cent stronger than ordinary bolts, having a tensile strength of 90,000 pounds. Reinforcing angles, channels, and strips are high grade, high carbon steel. Our gasketing is a specially developed cloth inserted, pliable rubber material. Our Gaso cement for dressing seams resists the action of gasoline and lighter oils. Painting is with Maloney Special pearl gray paint.

MALONEY design provides a patented "crimp" at seams and joints which causes parts to fit with accuracy. Seams are rigidly reinforced. Decks are supported with strong angles, with cantilever trusses on 1500-bbl. and larger sizes. Cleaning out plates are set flush with bottoms. We use the best obtainable valves and thief-hatches.

The illustration shows a battery of 14 low-type 500-barrel MALONEYS on the R. Jackson Farm at Little River, Oklahoma.

"Alone in Quality"

MALONEY TANK MFG. CO.
TULSA, OKLA., U. S. A.

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Sizes: 12 to 10,000 Barrels

Packed in Steel-Bound Crates for Export

Howell Aluminum "3-in-1" Vacuum Pressure Valve and Thief-Hatch —The BEST and LATEST Deck Equipment—POSITIVE Safety

KEYSTONE COPPER STEEL — MALONEY PATENTED BOLTED COPPER-STEEL TANKS — KEYSTONE COPPER STEEL

MALONEY
'ALONE'

CENTRAL WEST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
BROWN COUNTY—		
S. S. Aldridge et al, Woods 2	*	1503
Brown et al, Lewis 1	100	1086
Cranfill & Reynolds, Kellar 3-A	*	1230
Looper 1	*	1400
Heatley et al, George 1	*	505
A. C. McGahey et al, Gaines 1	*	1740
Mitcham et al, Thompson 1-B	45	1019
Pandem Oil Corp., Hutton 10	45	1071
E. H. Ramsey et al, Henson 4	5	1285
Sinclair & Smilock Pet. Co., Hines 1	*	1630
CALLAHAN COUNTY—		
Broderick & Calvert, Rutland 1	*	2104
Humble O. & R. Co., Dyer 1	*	1221
Peer Oil Corp. et al, Harris 1	*	2512
COLEMAN COUNTY—		
Byrd et al, Cheney 1	*	2003
Continental Oil Co. et al, Sealy-Smith 1	150	1627
Derby Oil Co., Jennings 4	250	1187
J. K. Hughes et al, Nowlin 1	*	2052
Manhattan Oil Co., Sealy-Smith 1	*	2806
R. U. Whiteside et al, Stafford 1	*	1602
EASTLAND COUNTY—		
R. W. Cleveneger et al, Penn 1	†	290
Mook-Texas Oil Co., Casey 3-B	*	3020
Panhandle Ref. Co., Webb-Brewer 1	*	1650
Schimmel Prod. Corp., Earnest 2	10	1540
L. Teatsorth et al, Hogue 1	*	1515
PALO PINTO COUNTY—		
TP Coal & Oil Co., Stuart 157	10	3235
SHACKELFORD COUNTY—		
J. P. Anderson et al, Davis 1	*	763
Gilman & McMurray, Davis 1-A, (Sec. 14)	*	1510
Kingwood Oil Co., Gorsuch 3	20	1524
Petroleum Prod. Co., Matthews 5	*	1177
Roeser-Pendleton Inc. et al, Cook 65-A, (Sec. 60)	45	1174
Tannehill-Kiser et al, Matthews 3, Sec. 27	200	1168
Lew H. Wentz et al, Moberley 9	25	1250
STEPHENS COUNTY—		
Gulf Prod. Co., J. M. Gholson 1	¶12	1988
Hanlon Gasoline Co., Wilson 1	¶¼-5	4045
Magnolia Pet. Co., Sullivan 1	*	4341
The Texas Co., Black 4	55	3205
TEXAS PANHANDLE		
GRAY COUNTY—		
Lefors Pet. Co., J. M. Shaw 2	¶15-1800	2686
McIlroy Oil Co., M. B. Davis 1	*	3500
HUTCHINSON COUNTY—		
Holmes & Quinn, Quinn 1	25	3250
POTTER COUNTY—		
Amarillo Oil Co., Masterson 1-K	¶8	3190
TEXAS GULF COAST		
BATSON—		
Paraffine Oil Co., Paraffine 73	6	385
BLUE RIDGE—		
Watts Bros., Blakely 4	160	2290
Scott 2	*	3995
GOOSE CREEK—		
Gulf, Prather-Drillers, Fee 10	20	2590
Gulf Coast Oil Corp., Gaillard 5	35	2840
HULL—		
Houston Prod. Co., Taylor 4	75	5080
ORANGE—		
Gulf, Chesson 8	*	4430
Sinclair O. & G. Co., Hager 3	700	3520
SOUR LAKE—		
Humphreys Oil Corp., Bashara G-1	25	4105
Lake View Oil Co., Hardin County 55	15	1355
SPINDLE TOP—		
Sun Oil Co., Price 4	25	5640
Yount-Lee Oil Co., Gladys 18	1000	3905

(Continued on Page 92)

Texas Supervisors Meet

Austin, Texas.—Deputy supervisors of the Oil and Gas Division of the Texas Railroad Commission have been called to meet at the headquarters of the commission here on June 23 for an annual conference and discussion of problems currently before that body. Activity of the department with reference to proration of production in West Texas is expected to result in much business to be transacted at this gathering.

LOWER AIR COST

GARDNER-DENVER Compressors are reducing air costs for the oil industry by providing compressed air with a **minimum** consumption of power and at negligible cost for upkeep and replacements. Rugged construction, with extra-wide bearings and extra-large crank shafts,—automatic lubrication,—long lived GARDNER Duo-plate Valves,—easy accessibility of all parts,—are important factors in GARDNER-DENVER Compressor economy. Operators who desire to reduce overhead to the minimum should investigate these famous compressors. Ask for Bulletins HAC-33 and HAC-34.

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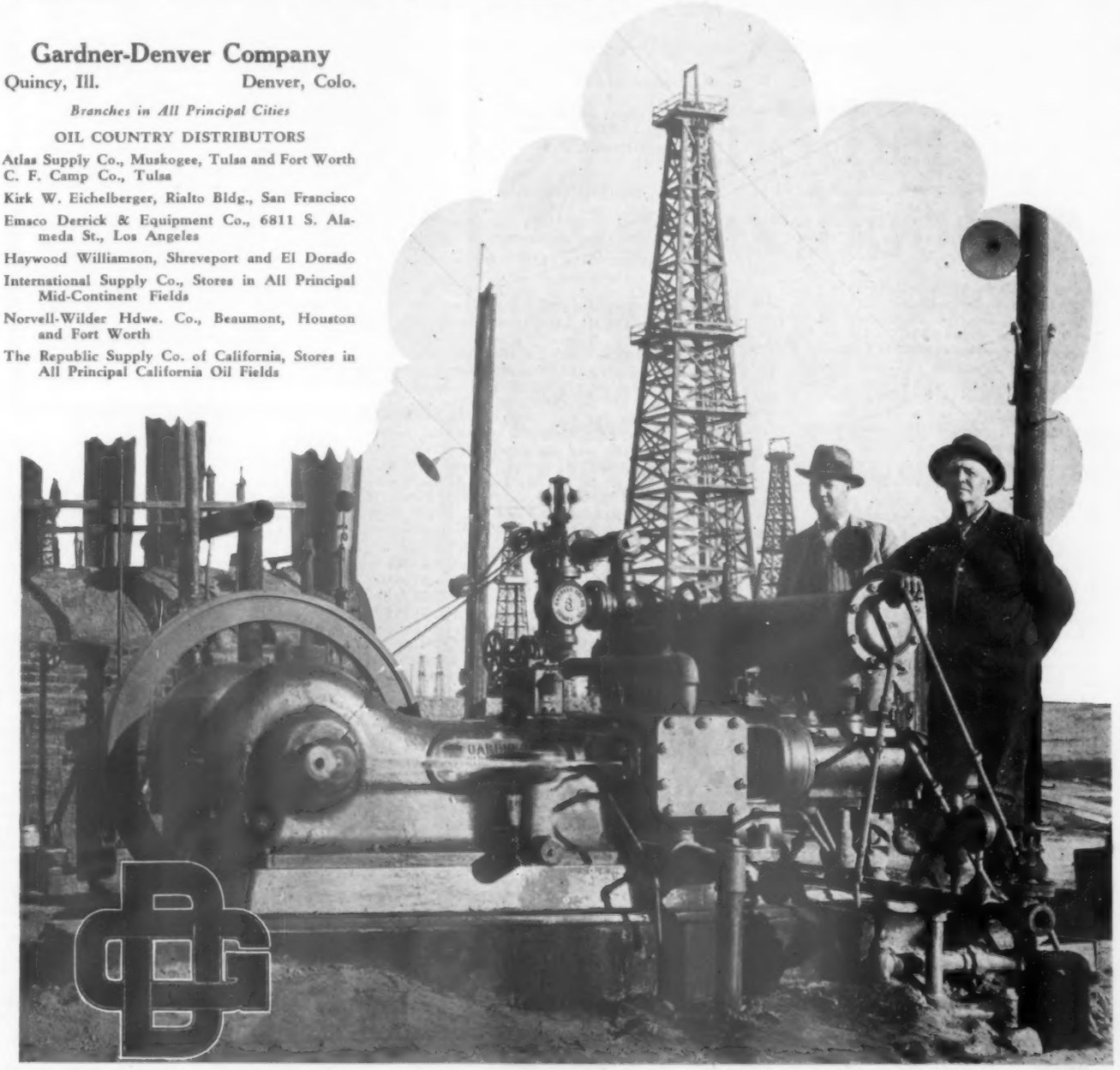
Haywood Williamson, Shreveport and El Dorado
International Supply Co., Stores in All Principal Mid-Continent Fields
Norvell-Wilder Hdwe. Co., Beaumont, Houston and Fort Worth
The Republic Supply Co. of California, Stores in All Principal California Oil Fields



GARDNER-DENVER

Say you saw it in The OIL WEEKLY

PERMITS GRANTED FOR NEW WELLS

WEEKLY COMPARISON OF NEW WELLS

Following is a condensed table giving a comparison of permits or locations made for new wells during the past year in Kansas, Oklahoma, Arkansas, Louisiana, Texas, California and the Mountain States:

	Week ending June 9	Previous week	Total this month	Total this year	This week last year	This month 1927	Total same date 1927	Year total 1927
Arkansas	40	5	45	162	6	11	188	329
California	34	..	34	436	..	14	701	1,226
Louisiana	20	13	33	322	11	22	310	812
Kansas	18	30	48	502	13	28	515	972
Oklahoma	71	60	131	1,433	52	101	2,029	3,702
Texas	129	126	255	3,414	98	246	4,953	8,665
Mt. States	..	..	..	....	10	10	295	494
Totals	312	234	546	6,269	190	432	8,991	16,149

KANSAS

BUTLER COUNTY—Shawver et al, Huntler 1, sec sw, 6-27-7e.

CHAUTAUQUA COUNTY—Elmwood Oil Co., Hilton 1, nec sw, 13-32-9e.

ELK COUNTY—Elk Pet. Co., Perkins 2, c se, 33-29-9e. Denton et al, Shaw 1, sec ne ne, 9-31-10e. Hood et al, Call 1, c se ne, 16-31-10e.

GREENWOOD COUNTY—Amerada Pet. Corp., Luthi 1, swc nw sw, 29-22-13e. Simmons et al, Schwab 4, sec ne se, 30-22-13e. Simmons et al, Calvert 1, nwc ne, 1-23-12e. Griffith et al, Claycomb 1, nec, 36-24-8e.

MARION County—Prairie O. & G. Co. et al, Thies 1, nwc, 15-19-4e. Madison et al, Schwindler 1, nec se sw, 9-17-4e. Phillips Pet. Co., Harwood 1, swc nw, 13-17-4e. Givens & Hershey, McCoy 2, sec ne, 14-17-4e. Johnson et al, McCoy 1, nec nw se, 14-17-4e. Phillips Pet. Co., McCoy 2, nec se, 14-17-4e. Givens & Hershey, Faulks 1, sec sw ne, 14-17-4e. Lariaux et al, Dunlop 1, nwc sw, 24-17-4e. Youker et al, Fronta 1, swc nw ne, 21-18-4e.

OKLAHOMA

CADDO COUNTY—English Drlg. Co., Caddo 4, ne nw se, 5-5n-9w.

CARTER COUNTY—Schermerhorn et al, Crockett 5, sw ne sw, 23-1e-3w.

CREEK COUNTY—Lyons Pet. Co., Harjo 1, sw se sw, 7-14-10e. C. G. Tibbens, Curtis 1, nec sw, 29-15-9e. Madden & Madden et al, Wright 1, nwc sw se, 13-15-9e. Harry 1, sec ne sw, 13-15-9e. Whitten & Wilcox O. & G. Co., Wrightsman 4, nwc se nw, 11-17-10e. Ireland et al, Taconey 3, nec sw nw, 11-17-10e. Kiyoco Pet. Co., Self 1A, sec nw ne sw, 36-17-9e.

COTTON COUNTY—Cullum & Jenkins, nec nw ne ne, 3-2s-10w. Cullum & Jenkins, Smith 3, nec sw se se, 34-1s-10w.

GARFIELD COUNTY—Champlin and Marland Oil Co., Stoner 1, nwc se, 24-24n-3w.

GRADY COUNTY—Kahl et al, Petty 1, sec ne, 14-4n-8w. Merridian Gas Co., Woods 3, nwc sw ne nw, 2-4n-8w. Sultain et al, Jelks 1, se ne se, 22-5n-7w.

HUGHES COUNTY—Furhman Pet. Co., Buck 1, ne nw se, 26-9-10e.

JEFFERSON COUNTY—McGinley & Sigler, Pfile 1 B, nec nw nw, 20-7s-5w. Leash & McCall, Peniston 2 B, sec sw, 17-7s-5w; Peniston 1 B, swc se, 17-7s-5w; Peniston 4, nws ne se sw, 17-7s-5w.

KAY COUNTY—Parrish et al, Buessing 3, sec nw, 9-27-1e. Northern Counties Gas Co., Jennings 1, c nw se, 19-27-1w.

LOGAN COUNTY—Tibbets & Bonds, Donahoe 1, sw nw se, 21-18-2w.

MUSKOGEE COUNTY—M. S. Mussellem, Cobb 1, swc se nw ne, 5-13-9e. Scotch Oil Co., Crabtree 2A, cnl sw ne, 2-14-18e. Kimsey & Sanderson 1, lot 18, blk 5, swc nw nw, 36-15-18e. R. H. Kimsey 1, blk 358, sec ne ne, 35-15-18e. C. O. Buckels et al Barnet 8, nec se, 8-15-15e. Keller & Ingram Spaulding 2, sec ne sw, 3-15-18e.

OKMULGEE COUNTY—Chief Drlg. Co., Bullett 1, swc ne, 27-12-12e. C. G. Colvin et al, Anthony 1, nwc sw nw, 35-12-12e. A. G. Hazlett, Tucker 6, sec nw se, 2-13-14e. J. E. Wallace, Colbert 10, nec nw se, 14-14-14e.

OSAGE COUNTY—Peters et al 2, nwc sw, 28-24-9e. Kewanee O. & G. Co., 12, ne se ne, 28-27-6e; 11, nw se ne, 28-27-6e; 10, se ne sw, 21-27-6e.

PAWNEE COUNTY—Magnolia Pet. Co., Coats 1, se ne nw, 15-20-6e.

PONTOTOC COUNTY — Westheimer & Daube, Wade 3, ne sw ne, 19-5-8e.

POTTAWATOMIE COUNTY — Magnolia Pet. Co., Ingle 1, nw ne ne, 34-7-4e. Phillips Pet. Co., Cherry 1, sw nw ne, 25-7-4e. Mid-Kansas O. & G. Co., Tarter 1, se sw nw, 25-7-we. Gypsy Oil Co., McGee 4, swc ne, 23-7-4e. Home Gas Co., Townsite 1, swc, 14-7-4e.

SEMINOLE COUNTY—La. Oil Ref. Co., Reed 4, nw ne ne, 18-5-8e; Punluste 2, nwc ne sw sw, 8-5-8e. T. B. Slick, Sillah 1, swc, 12-5-7e. Pure Oil Co., Harjo 2, nw sw ne, 11-7-6e. Magnolia Pet. Co., Denby 1, ne se nw, 11-7-6e. W. B. Pine, Coker 1, nw sw sw, 1-7-6e. Skelly Oil Co. and Atlantic Oil Prod. Co., Sherry 4, ne nw sw, 6-9-6e. Carter Oil Co., James 4, nw ne sw, 6-9-6e; James 3, sw ne sw, 6-9-6e; James 2, ne sw sw, 6-9-6e; James 1, nw sw sw, 6-9-6e. Gypsy Oil Co., Sango 9, se nw se, 1-9-5e. Mid-Continent Pet. Corp., Nevins 1, sec, 32-10-6e.

STEPHENS COUNTY — Hawks & Ware, Florence 2, nw ne se, 11-3s-6w. Wirt Franklin Pet. Corp., Fobb 5, nw c ne ne se, 12-2s-8w. Pace et al, Wilson 4, swc se se ne, 12-2s-8w. Owen & Wood, Massey 10, nec se se nw, 12-2s-8w. Murphy Oil Co., Fobb 14B, sec ne nw sw, 12-2s-8w. Insligs & Russell, Perry 1, ne sw nw, 16-1s-6w, Hupp & Duff, Fee 4, sec nw sw ne, 34-1s-8w.

TILLMAN COUNTY—Bray et al, Barker 1, c se nw, 9-1s-15w.

TULSA COUNTY—Sheridan Oil Co., Jenkins 1, nwc sw, 10-16-12e. Ellen O. & G. Co., Island 7, nw ne ne, 25-18-14e. Altitude Pet. Co., Perryman 4, nwc sw sw sw, 30-19-13e. Underwood et al, Brown 5, nec se se nw, 30-19-12e. Sand Springs Home, Jones 2, sec sw nw ne, 15-19-11e.

WAGONER COUNTY—G. H. Loweree, Smith 1, nwc sw sw, 14-16-15e.

LOUISIANA

ACADIA PARISH—Cline, Smith & Cline, Lake Charles, Conklin 7, 45-9s-2w, 626 ft w and 756 ft n of se c. Hines & Hintz, Evangeline, Jennings-Heywood 1, 49-9s-2w, 50 ft n and 50 ft w of se c lot 4 in blk 12.

BOSSIER PARISH—Henry Norman, Tr., Philadelphia, Pa., McDade 2, 36-17n-12w, 3860 ft w and 660 ft n of sec c. R. O. Roy, Shreveport, W. A. Caplis 1, 25-16n-12w, 1455 ft e and 1410.5 ft s of nw c.

CADDO PARISH—Belchic & Laskey, Inc., Shreveport, Sharp 5, 15-18n-16w, 660 ft W and 560 ft s of ne c nw ne. W. W. Dobson et al, Miami, Okla., Hives hrs 8, 5-20n-16w, 200 ft s and 100 ft e of nw c ne ne.

CALCASIEU PARISH—Union Sulphur Co., Sulphur, Union Sulphur Co. 728, 29-9s-10w, 1923 ft w and 1755 ft s of Center; Union Sulphur Co. 729, 29-9s-10w, 1835 ft w and 2040 ft n of center; Union Sulphur Co. 730, 29-9s-10w, 955 ft w and 58 ft s of Center.

CAMERON PARISH—Calcasieu Oil Co., Inc., Magnolia Pet. Co. and the Union Sulphur Co., Houston, Olevia 2, 36-12s-10w, 2663 ft e and 1460 ft s of nw c sec 241-12s-10w in sec 36; Valery 1, (amended permit), 36-12s-10w, 3382 ft e and 1080 ft s of nw c sec 241-12s-10w in sec 36; Watkins 5, (amended permit), 24-12s-10w, 1030 ft s and 3230 ft e of nw c; Watkins 6, 24-12s-10w, 2646 fe e and 1345 ft s of nw c.

DE SOTO PARISH—Monrovia Company, Shreveport, Nabors A-1, 5-12n-11w, 1306 ft e and 245 ft s of uw c.

MOREHOUSE PARISH—Consolidated Carbon Co., Monroe, Fee 3, 9-20n-4e, 2372 ft n and 3300 ft w of se cor of sec.

OUACHITA PARISH—Union Gas Co. and Consumers Gas Co., Monroe, Slaughter 1, 24-19n-4e, 1320 ft s and 660 ft w of ne c.

RICHLAND PARISH—W. C. Feazel, Monroe, Pardue 1, 6-15n-6e, 2350 ft s and 3029 ft w of ne c. S. D. Hunter, Shreveport, Pardue 1, 21-16n-6e, 1890 ft w and 660 ft s of ne c se.

SABINE PARISH—Arkansas Fuel Oil Co., Shreveport, Logan Oil Co. 12, 33-10n-12w, 480 ft s and 1635 ft e of nw c sw nw.

WEBSTER PARISH—Virgil Helm, Fort Worth, Mitchell 1, 32-23n-9w, 560 ft s and 1980 ft w of ne c. Humble O. & R. Co., Houston, Cox 4, 22-21n-10w, 355 ft s and 660 ft e of nw c ne. Bruce Richardson, Beaumont, Bailey 1, 29-23n-9w, 660 ft s and 660 ft e of Center.

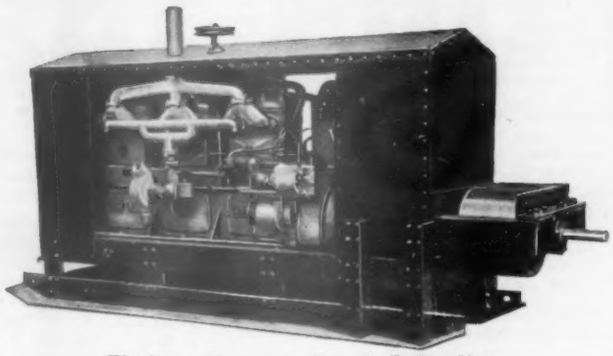
ARKANSAS

CHICOT COUNTY—S. D. Hunter, Lytle 1, 9-19-3, sw c sw se.

JOHNSON COUNTY—Arkansas Nat. Gas Co., Self 1, 14-10-24, center of nw sw.

NEVADA COUNTY—Humble O. & R. Co., Mixon 1, 6-14-20, 330 ft s and 330 ft e of nw c se ne.

UNION COUNTY—T. H. Barton et al, Doss 1, 16-17-14, ne c e sw ne. H. L. Hunt, Gregory 2, 10-17-14, 200 ft s and 200 ft w of ne c sw se; Dobson 1, 3-19-12, ne c nw sw; Gregory 5, 15-17-14, se c ne nw; Gregory 9, 15-17-14, 510 ft e and 150 ft n of sw c ne nw; Gregory 12, 10-17-14, 200 ft s and 200 ft e of nw c se sw. Imperial O. & G. Co., Goodwin 1, 27-17-16, se c section. E. C. Johnson, Tr., Gregory 2, 10-17-14, ne c nw sw. Pat Marr, Hicks 1, 16-17-14, ne c sw he. Magna Prod. Co., Townsend 2, 10-17-14, sw c nw ne. Marr & Hooser, Slade 1, 3-17-14, sw c e½ sw se. Mazda Oil Corp., Diffie 1, 16-17-14, ne c se sw. C. E. Murdock, Gregory 5, 10-17-14, 200 ft n and 200 ft e of sw c ne ne; Gregory 6, 10-17-14, nw c ne se. Ohio Oil Co., Connor 1, 11-17-14, 330 ft s and 330 ft e of center; Lochner 3, 11-17-14, 330 ft n and 330 ft w of center; J. M. Gregory 1, 10-17-14, 200 ft s and 200 ft e of nw c sw ne; Rowland 2, 15-17-14, 330 ft s and 330 ft e of nw c se ne; Warren 1, 10-17-14, 200 ft s and 200 ft w of ne c sw sw. Patterson et al, Barnett 1, 33-17-14, 150 ft w of ne c se nw. Pure Oil Co., Gregory B-2, 10-17-14, 200 ft n and 200 ft e of sw c se ne; Gregory Est. 2, 15-17-14, 330 ft n and 330 ft w of se c nw ne; Gregory Est. 3, 15-17-14, 200 ft s and 200 ft e of nw c sw ne; Gregory Est. 4, 15-17-14, 200 ft n and 200 ft e of sw c nw ne; Gregory Est. 5, 15-17-14, 330 ft s and 330 ft w of ne sw ne; Gregory 7, 10-17-14, 200 ft s and 200 ft e of nw c se se; J. M. Gregory 3, 11-17-14, 330 ft s and 330 ft w of center; Taylor 1, 10-17-14, 200 ft n and 200 ft w of se c nw se; Taylor 2, 10-17-14, 200 ft s and 200 ft w of ne c nw se. Root Ref. Co., E. F. Gregory 1, 10-17-14, sw c w½ ne sw; J. M. Gregory 1, 15-17-14, ne c se nw. Skelly Oil Co., Gregory 1, 15-17-14, 150 ft s and 150 ft w of ne c e½ nw se nw; Perdue 1, 10-17-14, 150 ft s and 150 ft w of ne c se nw; Perdue 2, 10-17-14, 150 ft n and 150 ft e of sw c se nw. Tharpe et al, Hicks 1, 16-17-14, nw c ne se. F. B. Wood, Tr., Spahr 3, 34-15-16, se c nw ne.



The Climax Paymaster 6-Cylinder Drilling Unit

Another Climax Booster

Roy Sutton of the Independent Oil & Gas Company at their No. 3 Bevin Well in Marion County, Kansas (Lost Springs Pool) says, "The Climax 'Paymaster' is the finest drilling unit I have ever seen around a well." He also says, "It has completely changed my opinion of an internal combustion engine for drilling." Other users we hear from feel as Roy does, because Climax Drilling Units are cutting drilling delays and are lowering the per-foot drilling costs.

CLIMAX ENGINEERING COMPANY
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The top photo shows Roy Sutton on the job. The bottom photo gives you an idea of the No. 3 Bevin Well in Marion County, Kans.

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Say you saw it in The OIL WEEKLY

TEXAS

ARCHER COUNTY—Barnsdall Oil Co., Tulsa, Rudd, blk 28, Harris sur, 150 ft from n and e lines. Moss Farm Oil Co., Wichita Falls, Moss 2, sec 1, HT&B sur, 600 ft from s and w lines. Texas Co., Wichita Falls, Conner 1, J. Tumlinson sur, 1025 ft. from w and 1036 ft from s line. Kemrow Co., Electra, Mangold 15, E. Patterson sur, 400 ft se of No. 1. Grisham & Panhandle Ref. Co., Wichita Falls, Farmer 2A, J. Pointevent sur, 300 ft e of No. 1. Consolidated Oil Co. of Texas, Wichita Falls, Wright 1, 2435 TE&L sur, 150 ft from n and 810 ft from e line. J. G. Rowe, Wichita Falls, Logan 1, No 25 K. M. Taylor sur, 150 ft from n and e lines. Frank Hutcheson, Archer City, Hutcheson 3, J. Ostane sur, 150 ft from n and 450 ft from e line. M. E. Smith, Iowa Park, Ford 1, E. Fitzgerald sur, 414 ft from n and 150 ft from e line. Tidal Oil Co., Fort Worth, Turbeville 5, blk 152 R. Carson sur, 400 ft s of 4.

ANDERSON COUNTY—Humble O. & R. Co., Houston, Jones 2, D. Roberts sur, se corner.

BROWN COUNTY—Midland Oil Co., Fort Worth, Butler 5, sec 782 T. Henson sur, 750 ft from e and 150 ft from s line. Kone Prod. Co., Cisco, Hickman C3, 782 T. Benson sur, 320 e of center of w line; C4, same sur, 150 ft from n and w lines; Hickman B11, 782 T. Benson sur, 150 ft from n and w lines. Anna Belle Oil Co., Cisco, Hickman 4, 783 T. Benson sur, center. S. W. S. Oil & Gas Ass'n., Camden, Neb., Baugh 2, 638 J. C. Neal sur, 200 ft from n and e lines. Henshaw Oil Corp., San Angelo, Bush 15, 624 J. Kinney sur, 150 ft from s and e lines. Midland Oil Co., Fort Worth, Hickman 1, blk 801 McGlorin sur, 150 ft from n and e lines.

BASTROP COUNTY—Simms Oil Co., Dallas, Doherty 1, J. Maximillian, 450 ft from n and 150 ft from w line.

BURLESON COUNTY—Rita O. & G. Co., Caldwell, Sparks 1, H. EE. Davis sur, south central part of lease.

CALLAHAN COUNTY—Jones & McClendon, Baird, Ramsey 1, 39 SPRy sur, 150 ft from n and w lines. Moutray Oil Co., Abilene, Hickman 14, sec 149 BBB&C sur, 300 ft e of 13. C. C. Stephan, San Antonio, Dunaway 1, sec 3, GC&SF sur, 700 ft from n and 400 ft from w line. Sterling O. & G. Co., Abilene, Wheeler 3, sec 25 D&D Asy. sur, 960 ft from e and 450 ft from n line. W. B. O. & G. Co. & Bates, Cross Plains, Arrowood 5, blk 4, CCSL sur, 650 ft from n and 450 ft from e line.

COLEMAN COUNTY—Texas Co., Wichita Falls, Smith B B1, sec 13, blk 1, GH&H sur, 200 ft from s and e lines. Roth & Faurot, Valeria, Terry 1, blk 57 CCSL sur, 334 ft from s and 165 ft from e line.

COOKE COUNTY—W. J. Green, Wichita Falls, Moon 1, BBB&C sur, 1078 ft from n and 2667 ft from w line; Thomas 1, BBB&C sur, 546 ft from w and 150 ft from s line.

COMANCHE COUNTY — Amerada Pet. Corp., Houston, Landreth 1, sec 1, LCSL sur, 1327 ft from n and 150 ft from w line.

EASTLAND COUNTY—B. L. Russell, Baird, Qualls 1, sec 8, BBB&C sur, 150 ft from w and 1489 ft from s line. Lechner & Clark, Cisco, White 1, sec 23, blk 2, ETRy sur, 150 ft w of center of e line. Republic Prod. Co., Dallas, Sneed 3, McLCSL sur, 150 ft from s and w lines. Hoffman & Page, Eastland, Foster 1, sec 27, blk 2, H&TC sur, 175 ft from n and 200 ft from e line.

FORT BEND COUNTY—G. M. Goldsmith, Neechille, Raesmer 1, sec 41, H&TC sur, nw corner. Humble O. & G. Co., Houston, Deatherage 1, E. Alcorn sur, 450 ft from e and 338 ft from s line. Navarro Oil Co., Houston, Community 1, blk 13, Shropshire sur, 50 ft from n and 100 ft from w line.

GRAY COUNTY—Texas Co., Wichita Falls, Chapman A4, sec 50, blk 25, H&GN sur, 330 ft from n and 155 ft from e line.

HARRIS COUNTY—T. W. Horn, Houston, Fee 29, J. B. Jones sur, 670 ft from w and 60 ft from s line. C. A. Adams, Humble, Hirsch 1, blk 10, J. B. Jones sur, north central. Navarro Oil Co., Houston, Cain A3, 98 J. Hamilton sur, 458 ft from n and 65 ft from w line.

HOWARD COUNTY—Ward Oil Corp., Ardmore, Okla., Roberts 2, sec 137, blk 29, W&NW sur, 330 ft from n and w lines. Merrick & Bristow, Ardmore, Okla., Hooks 7, sec 140, blk 129, W&NW sur, 1544 ft from w and 200 ft from s line. Pure Oil Co., Fort Worth, Chalk 5, sec 125, blk 29, W&NW sur, 660 ft w of 4. Amerada & Rycade Oil Corp., Fort Worth, Stewart 1, sec 130, blk 29, W&NW sur, 330 ft from s and e lines; Roberts 1, sec 137, blk 29, W&NW sur, 330 ft from s and w lines.

HARRISON COUNTY — Ritchie, Nichols, Parsons, Boston, Mass., Akin 1, P. Daugherty sur, 300 ft w of center of e line.

HUTCHINSON COUNTY — Phillips Pet Corp., Bartlesville, Okla., Pool 1, sec 82, blk 46, HæTC sur, 330 ft from n and w lines.

JEFFERSON COUNTY — Gulf Prod Co., Houston, Gladys 232, J. A. Veatch sur, 200 ft ne of 231. L. A. Painter Co., Houston, Ewing & Ring 1, blk 102, J. A. Veatch sur, nw corner. Yount-Lee Oil Co., Beaumont, McFaddin 71, blk 1, P. Humphreys sur, 47 ft from e and 1440 ft from n line. J. O. Davis, Beaumont, Gladys 1, blk 115, J. A. Veatch sur, 20 ft from n and e lines; Gladys 1, blk 1, same sur, 20 ft from e and 62 ft from s line. A. M. Deems, Beaumont, Masham 2, Dyches sur, 100 ft ne of 1.

JACK COUNTY—Wixon & Cromwell, El Dorado, Kas., Sloan 1, J. W. Williams, 150 ft from n and w lines. Petroleum Prod Co., Wichita Falls, Jones 1, I. Hughson sur, 750 ft from n and w lines. Robert Oil Corp., Breckenridge, Warren 1, 2784 TE&L sur, 150 ft from e and 600 ft from s line.

LIBERTY COUNTY—J. O. Davis, Beaumont, Turner 1, M. G. White sur, se corner. Yount-Lee Oil Co., Beaumont, Mitchell 6, M. G. White sur, 200 ft from w and 350 ft from s line; Mitchell 7, same sur, 350 ft from w and 200 ft from s line.

LAMPASAS COUNTY—Sunshine Oil Co., South Pasadena, Calif., Morgan 1, 49 F. C. Wilson sur, 1320 ft from w and 150 ft from s line.

McCLENNAN COUNTY — H. R. Crain, Waco, Gent -, B. L. Clement sur, 400 ft from s and e lines.

MOORE COUNTY—Skelly Oil Co., Tulsa, Okla., Byrd All 3, G. W. Proctor sur, 660 ft from n and 330 ft from w line.

MONTAGUE COUNTY—Dr. Given, Sulphur, Okla., Hinton 1, A. Coates sur, 150 ft from s and e lines.

NAVARRO COUNTY—D. H. Byrd, Brownwood, Shelton 1, W. M. Shelton sur, 150 ft from n and e lines.

PANOLA COUNTY — D. A. Raymond, Shreveport, La., Hawkins 1, J. Shandoin sur, 350 ft from n and e lines.

PECOS COUNTY—Roxana Pet. Corp., Dallas, Smith 1, sec 38, blk 194, GC&SF sur, 250 ft from n and e lines. O. R. Reed, Abilene, Byrens 1, sec 114, blk 11, H&GN sur, 1320 ft from n and 330 ft from w line. Mays-Nixon Co., San Angelo, Perry 1, sec 1, blk Z, TCRy sur, center.

REAGAN COUNTY—Big Lake Oil Co., Best, University 150, sec 1, blk 2, Univ. Lands sur, 440 ft w of 81.

SHACKELFORD COUNTY — Roeser & Pendleton, Inc., Fort Worth, Cook C20, sec 60, ETRy sur, 932 ft from w and 631 ft from n line; Cook A68, same sur, 522 ft from s and 150 ft from e line J. S. Dennis, Moran, Dennis 2, sec 15, LAL sur, 150 ft from n and 270 ft from w line. E. M. Treat O. & G. Co., Pittsburgh, Penna., Matthews 4, sec 33, ETRy sur, 300 ft s of 3. C. F. Steele, Rosston, Ark., Leschber 8, 545 TE&L sur, 750 ft from ne and 150 ft from se line. A. D. Robinson, Dallas, Blach B17, 391 TE&L sur, 150 ft from sw of center of ne line. L. H. Wentz, Eastland, Reynolds 3, sec 13, blk 11, T&P sur, 400 ft ne of 1. Roeser & Pendleton, Inc., Fort Worth, Cook A65. sec 60, ETRy sur, 497 ft from s and 150 ft from w line; Cook A4, sec 61, same sur, 753 ft from s and 699 ft from e line. A. C. Walker, Albany, Tuskey 7, 529 TE&L sur, 400 ft from ne of 4. Skelly Oil Co., Tulsa, Matthews 3, sec 32, ETRy sur, ne corner. J. E. Lake et al, Dallas, Davis 1, 535 TE&L sur, 957 ft from n and 410 ft from e line.

STEPHENS COUNTY — Hickok Prod & Dev. Co., Eastland, Tomlinson 1, sec 447, SPRy sur, 268 ft from e and 517 ft from s line.

TOM GREEN COUNTY—Concho Pacific Oil Co., Christobal, Bawcam 2, sec 73, blk 17, J. Eldridge sur, 361 ft ne of 1; Bawcam 3, same sur, 153 ft from e and 168 ft from s line.

WICHITA COUNTY—R. P. Dorian, Wichita Falls, George 4, 818 TE&L sur. Holbrook & Woods, Wichita Falls, Kemp & Kemper, sec 82, WVFL sur, 116 ft n of 10. Eastern Pet. Corp., Wichita Falls, Burnett 5A, blk 9, HT&B sur, 150 ft from n and w lines. Burnett 6A, same sur, 262 ft s of 5; Burnett 7A, same sur, 150 ft from s and w lines. J. T. Willis, Wichita Falls, Preston 1, W. H. Anderson sur, 150 ft from s and e lines; Preston 2, same sur, 300 ft w of 1. L. P. Hammond, Wichita Falls, Munger 1, blk 30, Munger sur, 450 ft from n and 150 ft from e line.

WILBARGER COUNTY—C. P. Burton, Wichita Falls, Waggoner 1, blk 4, H&TC sur, 150 ft from n and 1830 ft from sw line. Phillips Pet. Corp., Bartlesville, Okla., Waggoner T 12, sec 44, blk 4, H&TC sur, 220 ft from n and 100 ft from e line. Hamilton & Martin, Wichita Falls, Waggoner 1A, blk 5, H&TC sur, 150 ft from s and 150 ft from w line; Waggoner 1B, blk 5, H&TC sur, 150 ft from s and e lines. Fain-McGaha Oil Corp., Wichita Falls, Waggoner S5, sec 24, blk 4, H&TC sur, 755 ft from w and 150 ft from s line; Waggoner L5, sec 31, blk 4, H&TC sur, 300 ft s of 4; Waggoner L6, same sur, 300 ft s of 5. Barkley & Meadows, Wichita Falls, Waggoner D1, sec 5, blk 5, H&TC sur, 150 ft from n and 490 ft from e line. Texas Co., Wichita Falls, Waggoner J 1, sec 5, blk 5, H&TC sur, 150 ft from n and w lines. Consolidated Oil Co., Wichita Falls, Waggoner 2, sec 5, blk 5, H&TC sur, 300 ft w of 1; Waggoner 3, same sur, 300 ft n of 1.

WINKLER COUNTY—Prairie O. & G. Co., Ranger, T. G. Hendrick 3, sec 40, blk 26, 1320 ft from n and 330 ft from w line. Dixie & Southern Crude Oil Purchasing Co., Shreveport, La., I. Hendrick J2, sec 28, blk B5, 330 ft from e and 1320 ft from s line; I. Hendrick H5, sec 28, blk B5, 660 ft e of 4.

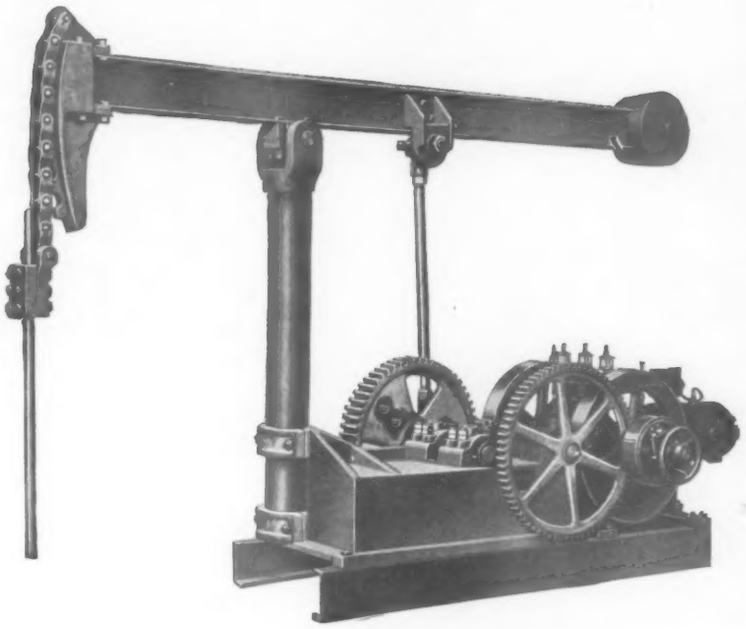
WHARTON COUNTY—Weed-Gayle Oil Co., Beaumont, Bay 20, S. F. Austin sur, 130 ft from nw and 300 ft from sw line.

WEBB COUNTY—Magnolia Pet Co., Dallys, Valdez 3, 754, 300 ft from n and e lines. O. W. Killiam, Laredo, Bruni 12, blk 64, Arriba sur, 304 ft ne of 8; Bruni 13, same sur, 304 ne of 12.

YOUNG COUNTY—Texas Co., Wichita Falls, Stewart 8, D. Dawson sur, 272 ft n of 7; Stewart 7, same sur, 272 ft n of 6. T. H. Peery et al, Wichita Falls, Burdick 1, 2714 TE&L sur, 450 ft from s and 150 ft from w line. Wills & Gatewood, Jean, Cantwell 1, 288 TE&L sur, 150 ft from n and e lines. Christie & Sharp, Olney, Dunnigan 1, 157 TE&L sur, 840 ft from e and 150 ft from n line. Bullington, Pendleton & Bullington, Wichita Falls, Boone 5, sec 1, BBB&C sur, 300 ft s of 2. E. J. Forrest, Graham, Stewart 1, 2797 TE&L sur, 1706 ft n and 490 ft from w line. J. D. Byrom, Wichita Falls, Edwards 1, 1499 TE&L sur, 900 ft from w and 450 ft from s line. T. G. Shaw, Fort Worth, Treve 1, sec 98, A. Burch sur, 200 ft from s and w lines. C. P. Burton, Wichita Falls, Peters 1, 1 I&GN sur, 150 ft from n and w lines. R. C. Parker, Graham, Johnson 4, blk 4, E. W. Sargent sur, 1050 ft from e and 450 ft from n line. Riggs & Oliphant, Graham, McKinley 10, 1499 TE&L sur, 450 ft from w and 500 ft from s line. Daniel, Chancellor & Anderson, Dallas, Grubbs 1, 635 TE&L sur, 150 ft from n and e lines. Allday Oil Corp., Wichita Falls, Drum 1, W. H. Fitchett sur, 150 ft from n and e lines. Weekley Oil Corp., Fort Worth, Robinson 1, 1466 TE&L sur, 150 ft from s and e lines. W. H. Kerbow, Henrietta, Lowrance 1, 2731 TE&L sur, 1470 ft from n and 750 ft from w line.

(Continued on Page 92)

A Straight Pull



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Wichita Falls, Texas J. W. Noland
Putnam, Texas Putnam Supply Co.
Bradford, Pa. The Blaisdell Machinery Co.

WILDCATS FROM ALL SECTIONS

ARKANSAS

Completions

Company, Well and Location	Initial Production Bbls.	Depth
BRADLEY COUNTY—		
Johnson & Adams, Southern Lbr. Co. 1, 12-12-12	*	3165
NEVADA COUNTY—		
McDonald et al, Pelt 1, 9-15-22	*	2424

ASHLEY COUNTY—South Ark. Nat. Gas & Fuel Corp.'s Holmes 1, 9-16-7, dk.

BRADLEY COUNTY—Joe Hurley's Southern Lbr. Co. 1, 26-15-10, sd 21 ft.

CLARK COUNTY—W. M. Henry Tr.'s Clark 1, 34-9-21, sd 1200 ft. McKenzie Oil Co.'s Eaken 1, 9-11-10, dr 1460 ft.

CHICOT COUNTY—Joe Crawford et al's Cashion 1, 14-18-2, dr 360 ft. S. D. Hunter's Lytle 1, 9-19-3, dk.

COLUMBIA COUNTY—Atlantic Oil Producing Co.'s Jean 1, 11-19-19, dr 1100 ft. Geo. Dawley's Gantt 1, 12-17-22, sd 2520 ft. Mitchell et al's Franks 1, 25-19-22, sd 150 ft. Van Hagen Synd.'s Pickler 1, 19-19-22, sd 850 ft; Mason 1, 31-19-22, rig.

DALLAS COUNTY—Dedman et al's Hillman 1, 20-10-13, sd 1100 ft.

GRANT COUNTY—Jones & Watkin's Meek 1, 5-4-11, sd 1400 ft.

LINCOLN COUNTY—Pine Prairie O. & G. Co.'s Carter 1, 33-10-6, sd 2116 ft.

LITTLE RIVER COUNTY—Grote et al's Allen 1, 31-12-41, sd 2941 ft.

NEVADA COUNTY — Autrey Oil Co.'s Haynie 1, 6-14-20, wosr 1188 ft. Humble O. & R. Co.'s Mixon 1, 6-14-20, lcn.

OUACHITA COUNTY—Buffalo Oil Co.'s Laughlin 1, 22-15-19, dk. Timberlake et al's Carnes 1, 27-13-17, sd 2051 ft.

UNION COUNTY—Arkansas Nat. Gas Co.'s Felsenthal 1, 11-17-14, fsh 2790 ft. Arkansas Drilling Co.'s Carroll 1, 1-17-14, blg 3005 ft. Barton et al's Doss 1, 16-17-14, rig. Grimes Bros.' Hill 2, 7-18-14, rig. H. L. Hunt's Dykes 1, 21- 18-12, killing water flow 3203 ft; Dobson 1, 3-19-12, lcn; Gregory 2, 10-17-14, rig; Gregory 5, 15-17-14, rig; Gregory 9, 15-17-14, rig; Gregory 12, 10-17-14, rig. E. C. Johnson's Gregory 1, 10-17-14, dr 2966 ft; Gregory 2, 10-17-14, dk. Imperial O. & G. Co.'s Central Bank 1, 1-17-15, rig; Goodwin 1, 26-17-16, coring 3134 ft. E. M. Jones' Stegall 1, 22-17-14, dr 3610 ft; Crain 4, 2-17-14, sd 3069 ft. W. R. Keever's Ezell A-6, 12-17-15, sd 2136 ft. Lion O. & R. Co.'s Murphy C-7, 8-16-15, wosr 2468 ft; Murphy H-3, 9-16-15, fsh 3351 ft; Rowland 4, 15-17-14, rig; Rowland 2, 15-17-14, dr 2505 ft; Kelly 1, 9-17-14, junked hole at 2160 ft, skidded and set 10-inch at 152 ft; Nash 1, 6-17-13, set 6⅝-inch 3024 ft. Lyall et al's Stegall 1, 11-17-13, arr to make drill stem test 2740 ft. Magnolia Pet. Co.'s Carroll 2, 1-17-14, sd 1500 ft; Carroll 3, 1-17-14, tested No. 3 2993 ft; Felsenthal 1, 11-17-14, set 13⅜-inch 161 ft; Laney 3, 8-16-16, dk; Laney 4, 8-16-16, dk; Dumas 1, 11-17-14, set 12½-inch 206 ft. Mellon Tr.'s Van Hook 1, 7-18-14, wosr 2206 ft; Bullock 1, 7-18-14, wosr 2169 ft. Mountz et al's Pratt 6, 8-18-16, wosr 2200 ft. C. E. Murodck's J. M. Gregory 3, 10-17-14, dr 2960 ft; J. M. Gregory 4, 10-17-14, dr 2270 ft; J. M. Gregory 5, 10-17-14, set 10-inch 172 ft; J. M. Gregory 6, 10-17-14, rig. J. O. Moore Tr.'s Pagan 1, 18-18-11, tested sw 2990 ft. Magna Prod. Co.'s Dumas 3, 11-17-14, set 4¾-inch 3284 ft; Dumas 5, 11-17-14, coring 3218 ft; Rowland B-1, 14-17-14, dr 2950 ft; Rowland 2, 14-17-14, set 4¾-inch 3272 ft; Townsend 2, 10-17-14, dk. Joe Marr's Sloan 1, 14-17-1[illegible], arr to deepen 2190 ft. Pat Marr's Hicks 1, 16-17-14, dk. Marr & Hooser's Slade 1, 3-17-14, dk. Mazda Oil Corp.'s Diffie 1, 16-17-14, dk. Chas. F. Noble's Murphy Est. 1, 36-16-16, dk. Ohio Oil Co.'s Crain 4, 1-17-14, dk; Pumphrey 2, 1-17-14, tested dry at 3064 ft; Goodwin 2, 1-17-14, sd 3054 ft; J. M. Gregory 1, 10-17-14, lcn; Adams 1, 11-17-14, dr 3142 ft; Adams 2, 11-17-14, coring 3187 ft; Adams 3, 11-17-4, dr 307 ft; Adams 4, 11-17-14, dr 3190 ft; Townsend 1, 10-17-14, lcn; Lochner 1, 11-17-14, coring 3245 ft; Lochner 2, 11-17-14, dr 2700 ft; Lochner 3, 11-17-14, set 10-inch 159 ft; Rowland 1, 15- 17-14, fsh 3050 ft; Rowland 2, 5-17-14, lcn; Connor 1, 11-17-14, set 10-inch 185 ft; Smith 1, 1-17-14, tested sw 3094 ft. Ouachita Nat. Gas Co.'s Perdue 1, 33-16-14, coring 3040 ft. Patterson & Neighbor's Barnett 1, 33-17-14, set 10-inch 138 ft. Pure Oil Co.'s Gregory 2, 11-17-14, setting 4½-inch 3215 ft; Gregory 4, 10-17-14, dr 3175 ft; Gregory 6, 11-17-14, sd 3170 ft; Gregory 7, 10-17-14, dk; Gregory B-1, 10-17-14, dr 3188 ft; Gregory B-2, 10-17-14, lcn; J. M. Gregory 2, 11-17-14, dr 3094 ft; J. M. Gregory 3, 11-17-14, set 10-inch 180 ft; Gregory Est. 2, 15-17-14, rig; Gregory Est. 3, 15-17-14, dk; Gregory Est. 4, 15-17-14, lcn; Gregory Est. 5, 15-17-14, lcn; Taylor 1, 10-17-14, rig; Taylor 2, 10-17-14, lcn. Rhodes Tr.'s Amason 1, 21-16-14, dk; Union Saw Mill 1, 14-19-11, sd 3210 ft. Rice et al's Heineman & Meyers 1, 23-18-16, sd 2240 ft. Richardson et al's Goodwin 1, 16-16-14, set 10-inch 186 ft. Rovenger Oil Corp.'s Perdue A-1, 10-17-14, set 6⅝-inch 3157 ft. Dr. Rushing et al's Gregory 3, 11-17-14, set 6⅝-inch 3142 ft! Gregory 4, 11-17-14, set 6⅝-inch 3170 ft; Gregory 5, 11-17-14, set 10-inch at 167 ft; Gregory 6, 11-17-14, set 6⅝-inch 3209 ft. Rott Ref. Co.'s Jerry 1, 21-17-14, dr 2621 ft; E. F. Gregory 7, 10-17-14, rig; J. M. Gregory 1, 15-17-14, rig. Simmons et al's Green 1, 3-16-16, dr 1880 ft. Timberlake et al's Dumas 1, 11-17-14, recemented 6⅝-inch 3153 ft. Tharpe et al's Hicks 1, 16-17-14, lcn. F. B. Wood Tr.'s Spahr 3, 34-15-16, dk; Turnage 1, 34-15-16, tested show oil at 2054 ft.

LOUISIANA

Completions

Company, Well and Location	Initial Production Bbls.	Depth
BOSSIER PARISH—		
H. S. Goodwin Tr., Curtis 3, 2-16-13	*	2990
La. Pet. Co., Farrington 1, 25-23-12	*	....
Triangle Dr. Co., Bulkyeq 1, 9-20-13	*	2700
CLAIBORNE PARISH—		
El Dorado Chief Oil Co., Jones 1, 8-20-6w	*	2600
CADDO PARISH—		
Belchic & Lasky, Sharp 4, 3-18-16	*	956
W. D. Chew, State 6, 34-21-16	*	....
DE SOTO PARISH—		
Gulf Ref. Co., Jenkins A-35, 35-13-12	*	2604
NATCHITOCHES PARISH—		
Lawson & Pharris, Crowell & Spencer 1, 22-5-6w	*	3019
RAPIDES PARISH—		
Minnesota Oil Corp., Wettymark 2, 13-5-4w	*	2400
RICHLAND PARISH—		
Dixie Oil Co., McCoy 1, 29-16-6e	*	2683
Woodley Pet. Co., Osborne 1, 3-17-7e	*	3131
WINN PARISH—		
Roark et al, Southern Mineral Lands 4, 19-11-3w	*	1770
WEBSTER PARISH—		
Magnolia Pet. Co., Camp 1, 36-23-10	*	3263

BIENVILLE PARISH—S. P. Borden's L. & A. 2, 1-15-8, set 8¼-inch 1786 ft. Humble O. & R. Co.'s Anderson 1, 29-18-5, dr 4127 ft.

BOSSIER PARISH— Arkansas Nat. Gas Co.'s Bollinger 2, 38-23-11, rig; Peyton 1, 30-23-11, dr 1975 ft. Delaware Louisiana Dev. Co.'s Bolinger 4, 38-23-11, dr 2965 ft. Doern et al's Bollinger 1, 9-22-11, cored rock salt 4317 ft. H. S. Goodwin Tr.'s Curtis 2, 36-17-12, sd 3257 ft; McDade 1, 36-17-13, dr 911 ft; McDade 2, 36-17-13, dk. Wm. Gross et al's Stewart 1, 15-18-12, sd 3074 ft. Hamiter et al's Hamiter 1, 10-23-13, sd 1875 ft. D. D. Johnson's Caddo Ind. 1, 13-17-14, dry at 2640 ft. Nat. Gas & Prod. Co.'s Kilgore 1, 31-23-11, r 3076 ft. R. O. Roy's Werner 1, 7-17-11, lcn; Caplis 1, 25-16-12, sd 800 ft. Walker et al's Antrim 1, 28-22-13, sd 2900 ft.

CADDO PARISH—Bayou State Oil Co.'s Jolly C-1, 27-22-15, tested sw at 2377 ft. J. W. Burton Tr.'s Caldwell 8, 18-21-15, dk. Belchic & Laskey's Sharp 5, 10-18-16, lcn. W. T. Bell's Posey 4, 33-22-16, dk. J. T. Cox's Hall 1, 7-15-16, sd 1121 ft. Dixie Oil Co.'s Robertshaw 81, 13-21-15, sd 4148 ft; Robertshaw 92, 14-21-15, dr 4406 ft; Dillon 53, 13-21-15, dr 3740 ft; Huckaby 4, 11-21-15, sd 4037 ft. Dobson et al's Rives 7, 5-20-16, sd 1925 ft. Empire Gas & Fuel Co.'s Nicholson 1, 33-17-14, tested dry 3784 ft, dr 3865 ft. Greenwood Prod. Co.'s Cushman & Bridges 1, 15-18-16, arr to deepen 912 ft. Wm. Gross et al's Baker 1, 35-17-16, sd 1148 ft. Gulf Ref. Co.'s Tyson 12, 14-21-15, fsh 3823 ft; Tyson 13, 14-21-15, arr to deepen 3800 ft. Magnolia Pet. Co.'s Bell 2, 6-17-16, sd 3225 ft; Dillon 21, 23-21-15, lcn; Robertshaw 22, 23-21-15, coring 4331 ft; Bryson 2, 8-17-16, dr 1200 ft; Raines 26, 22-21-15, coring 3479 ft. D. C. Rishardson's Youree 6, 30-20-15, sd 2305 ft. Simms Oil Co.'s Glasselle 1, 23-20-15, sd 2366 ft. Simplex Oil Co.'s Baird 3, 22-20-15, sd 2265 ft; Hunsicker 6, 15-20-15, lcn. Shreveport Oil Corp.'s Muslow 3, 32-21-15, dr 2460 ft. The Texas Co.'s C. M. L. 47, 23-21-15, sd 3738 ft.

CATAHOULA PARISH—Lochnager O. & G. Co.'s Taliaferro 1, 26-9-6e, lcn; McMillan 2, 26-9-6e, lcn. The Texas Co.'s Tensas Delta Lbr. Co. B-1, 4-10-6e, sd 195 ft.

DE SOTO PARISH—Carlton Drilling Co.'s Stevens 2, 12-11-16, sd 350 ft. Monrovia Co.'s Nabors 1, 32-13-11, dr 750 ft; Nabors 2, 5-12-11, set 10-inch 104 ft. R. O. Roy's Lee 1, 33-14-13, dk. Williams et al's Fortson 2, 4-12-11, set 6-inch 2340 ft.

EAST CARROLL PARISH—Palmer Corp.'s Hamley 1, 27-20-11e, rig. The Texas Co.'s Boone Live Oak 1, 11-20-12e, sd 3013 ft. Woodley Pet. Co.'s Garden Home 1, 4-19-12e, rig.

FRANKLIN PARISH—La. Pet. Co.'s Daily 1, 6-11-7e, sd 2200 ft. Pittsburgh Explo. Co.'s Moore 3, 12-11-6e, sd 2501 ft.

GRANT PARISH—W. D. Ball et al's Calhoun 3, 9-7-4w, sd 950 ft. Swope et al's Fee 3, 8-9-1e, sd 1607 ft; Fee 5, 8-9-1e, wosr 1602 ft; Fee 6, 17-9-1e, dk.

LA SALLE PARISH—Elbert Pet. Co.'s Urania 3, 7-10-2e, sd 700 ft. H. T. Taylor's Urania 7, 19-10-2e, sd 1574 ft.

MADISON PARISH—W. S. Smith's Yerger 1, 51-16-14e, sd 1690 ft.

MOREHOUSE PARISH—Elbert Pet. Co.'s Morehouse Plbg. Co. 1, 40-19-7e, sd 2632 ft. Gulf Ref. Co.'s Higginbotham 1, 42-20-7e, tested sw 2624 ft; Weymond A-1, 7-18-6e, changing rig 2000 ft. Southern Carbon Co.'s Davis 1, 21-20-4e, set 6-inch at 2088 ft; Tensas Delta 4, 22-21-4e, lcn. The Texas Co.'s Myers 1, 15-22-7e, set 4½-inch 2896 ft; Huff 1, 36-23-7e, rig.

NATCHITOCHES PARISH—S. D. McDaniel's Clark-Morse 1, 23-5-6w, dr 1500 ft.

OUACHITA PARISH—Imperial O. & G. Co.'s Stubbs 6, 14-19-3e, dk. Jordan Drilling Co.'s Slagle 1, 48-18-4e, dk. Montgomery et al's Johnson 2, 31-19-4e, dr 50 ft. Natural Gas & Fuel Corp.'s McEnery 1, 21-19-4e, rig. Ouachita Natural Gas Co.'s Potts 1, 33-19-3e, dr 50 ft. Phillips et al's School Fee 1, 16-16-4e, dr 1064 ft. Pioneer O. & G. Co.'s Nolan 1, 17-18-4e, set 8-inch at 856 ft. Southern Carbon Co.'s Fairbanks 9, 34-20-4e, set 6-inch 2092 ft. J. O. White Tr.'s Schmidt 1, 3-15-4e, sd 3017 ft.

RAPIDES PARISH—Glemore Pet. Co.'s Fee 1, 1-2-2w, sd 3860 ft.

RICHLAND PARISH—Boeuff River Pet. Co.'s Sartor 1, 9-15-6e, rig. J. M. Fuller's Boise 1, 33-16-6e, lcn. Feazel & Hemler's Perdue et al 1, 21-16-6e, arr to test 2440 ft. W. C. Feazel's Pardue 1, 32-16-6e, set 6-inch at 2280 ft. Gulf Ref. Co.'s Millsaps 1, 8-17-6e, dr 3770 ft; Rhymes 3, 28-17-6e, drill stem stuck at 3645 ft. S. D. Hunter's McVoy B-1, 16-16-6e, set 6-inch at 2314 ft. Natural Gas & Fuel Corp.'s Sartor B-3, 19-16-6e, dk; Sartor B-4, 18-16-6e, lcn. Oliver & Master's Morrison 1, 2-15-5e, dr 2350 ft; Hatch Heirs 1, 11-15-5e, sd 2502 ft. Ruston Drilling Co.'s Alexander 1, 4-15-5e, lcn; Etheredge 1, 28-17-6e, lcn. Southern Carbon Co.'s Sartor 3, 18-16-6e, dr 1885 ft; Sartor Jr. B-1, 9-16-6e, set 6-inch at 2280 ft.

SABINE PARISH—Arkansas Fuel Oil Co.'s Logan 12, 33-10-12, dk. Doern et al's Pickering 1, 17-14-11, dr 2520 ft. R. L. Gay's Mansfield 1, 15-7-14, dr 2817 ft. The Texas Co.'s Hamlin Estate 1, 28-10-13, dr 2950 ft. Zwolle O. & G.

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Co.'s Bowman Hicks 7, 14-7-14, dr 3957 ft; Sabine Lbr. Co. 1, 8-17-13, dk.

TENSAS PARISH—Enoch et al's Curry 1, 39-11-12e, rig.

UNION PARISH—Carter & Wingfield's Security Trust 1, 6-13-1e, rig. Jones & Mullin's McLeod 1, 13-19-1e, lcn. Moody & Seagraves' Norsworthy 1, 9-21-3e, dr 900 ft. Natural Gas Prod. Co.'s L. J. Pace 1, 35-22-3e, set 8-inch 905 ft; N. A. Pace 1, 35-22-3e, dk. Ruston Drilling Co.'s Betty Neal 1, 24-20-3e, sd 50 ft. R. W. Rhodes' Upshaw 1, 14-23-2w, dk. United Carbon Co.'s Peck 1, 7-20-4e, dk.

WEBSTER PARISH—Allison et al's Lewis 1, 15-21-10, dr 4219 ft. Bethany O. & G. Co.'s Adkins 1, 32-23-9, dr 700 ft. Dixie Oil Co.'s Cox 1, 15-21-10, dr 3690 ft. J. P. Hawkins Well Synd.'s Lewis 1, 15-23-9, dr 2655 ft. Humble O. & R. Co.'s Webb 2, 14-21-10, coring 4678 ft; Bodcaw A-2, 14-21-10, dr 2304 ft; Davis 6, 14-21-10, setting 6⅝-inch 4200 ft; Cox 4, 22-21-10, dr 2310 ft. S. A. Lane's Miles 1, 24-17-9, sd 1469 ft. La. Oil Ref. Corp.'s Lindsay 4, 22-21-10, dr 4380 ft; Crichton 5, 21-21-10, dr plug 4330 ft. C. H. Lyon's Porter-Wadley 2, 29-23-9, testing 2732 ft. Morris et al's Lewis 1, 15-23-9, sd 150 ft. Magnolia Pet. Co.'s Bailey-Munn 1, 30-23-9, dk; Turner 5, 21-21-10, dk; Coyle 2, 21-21-10, dr 2906 ft; Cook 1, 2-22-11, dk; Sexton 1, 32-23-9, tested dry at 2666-2676-2680 ft; Mixon 1, 22-21-10, coring 4434 ft; Wise 1, 30-23-9, tested No. 3 at 2649 ft; Aarnes Cox 3, 22-21-10, dr 3525 ft; D. G. Cox 1, 22-21-10, sd 4752 ft; E. W. Cox 5, 15-21-10, dr 2576 ft; Merritt 5, 14-21-10, set 16-inch 426 ft. Ohio Oil Co.'s Bodcaw 39, 15-21-10, dr 4219 ft; Bodcaw 40, 15-21-10, dr 4116 ft; Bodcaw 41, 15-21-10, dr 3985 ft; Haynes 1, 30-23-9, dr 1603 ft; Hodges 2, 23-21-10, dk; Holloway 5, 23-21-10, dk. Palmer Corp.'s Mixon 1, 22-21-10, dr 4323 ft. Bruce Richardson's Mayfield 1, 20-23-9, swabbing 2776 ft. Woodley Pet. Co.'s Duhe 2, 22-21-10, dk; Burrow 1, 21-21-10, rig.

WINN PARISH—Calvin Oil Co.'s L. & A. L. (formerly reported as Bodcaw 2), 9-11-4w, sd 60 ft.

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MOUNTAIN STATES

MONTANA

BIG HORN—Selig Oil Co., se 21-6s-35, rigging to resume, td 850 ft.

CARBON—Ohio Oil Co., Northern Pacific 1, 11-7s-21e, fsh bit at 4410 ft. Atlantic Oil Co. 3, 20-7s-24e, dr 1470 ft.

CASCADE—Lone Star, McLean 1, se 13-21-3e, td 310 ft. Allen Oil Co., Keister 1, nw 11-22-1e, rig up.

CHOTEAU—Williston-Shelby Oil Co., Flack 1, se 12-28-11e, rig up.

FERGUS—Melton Corp., Fenholt 1, 24-21-17, co at 2390 ft. Mineral Research Co., 1, 13-17-23, sd 930 ft. DeMont Oil Co., 29-16-29, completing. Minnesota-Flatwillow Petroleum Co., 5-12-25, moving in.

GARFIELD—Carroll Bros., nw ne 6-14n-31e, sd cemented at 1140 ft.

HILL—Gad-Hamilton, se 15-30-13e, dr 560 ft. Jones Oil Co., Mangell 2, 32-32-14, dr 267 ft. MacFarland et al, sw 15-30-13e, dr 300 ft.

LIBERTY—Bear's Den Oil Co., Laird 1, 31-37n-6e, abn 3355 ft. Sunburst O. & R. Co., Disotell 1, 10-37-5e, dr 3015 ft. Square Deal Oil Co., Federal Land Bank 1, se 1-32-73, dr 400 ft.

RICHLAND—Community Drilling Co., Pioneer 1, se 35-27-51n, dr 3182 ft.

PONDERA—Calif. Pet. Corp., Jones 1, nw 8-27-4w, dr 400 ft. Texas Pacific Coal & Oil Co., Hirshberg 1, sw 14-27-4w, 200 bbls at 1934 ft. Calpet, Kingsbury 1, sw 15-27-4w, rig up.

PHILLIPS—Big Dome Oil Co., Bloomberg 1, ne 1-32-32e, resuming 980 ft. Dillman & Stephenson, sw 8-31n-34e, dr below 750 ft.

SWEETGRASS — Shoshone Consolidated, ne 23-2n-15w, dr 2950 ft.

TETON—Crockner et al, se 2-24-1e, abn 1730 ft. Fulton Pet. Corp., Trevillion 1, nw 21-27-4w, sd 1916 ft. Elkhorn O. & G. Co., 1, ne 12-24-1e, run cas 400 ft. J. W. Elliott, Spear 1, nw 8-25-1e, completing at 1500 ft. Genou Oil Co., Speer 4, nw 4-25-1e, lcn. Mitchner et al, Willick 1, nw 18-24-1e, rigging. C. L. Archer et al, 1, se 21-26-1e, rig up. Hardrock Oil Co., Speer 2, sw 5-25-1e, rig up.

UTAH

BOX ELDER—Utah Pennsylvania Oil Co., nw 3-10n-4w, spudded May 8.

CARBON—Price River Pet. Co., 1, se 16-14s-10e, dr 2700 ft.

GRAND—Utah Oil Ref. Moab Consolidated, Utah Southern, Salt Valley 1, 13-23-21, dr 40 ft. Utah Southern and Moab Consolidated, Shafer 1, 36-26-20, dr 1440 ft. Navajo Petroleum Co. 2-20-21, dr 100 ft. Crystal Carbon Co., 7, 14-20-21, cem cas at 2000 ft. Crystal Carbon Co., 8, 26-20-21, spd and sd. Crescent Eagle Oil Co., 1, se 4-22s-19e, co to 2600 ft, td 4000 ft. Western States Dev. Co., 1, sw 27-21s-19e, sd 1375 ft, will resume.

MILLARD—Beaver Valley Oil Co., Blackrock 1, 20-25s-9w, dr 3200 ft, carrying 4½-inch.

NAVAJO RESERVATION—Continental Oil Co., Boundary Butte 1, 31-43-21, dr 4100 ft.

SAN JUAN—Union Oil Co. of Calif., 40 miles se of Moab, spotting lcn. Boulder Knoll O. & G. Co., 1, 17-34-25, dr 2390 ft.

UINTAH—Western Venture Oil Co., Krumvieda 1, 6-5-21, cemented casing at 920 ft. Maude Ellen Oil Co., 28-3-21, dr 1080 ft.

UTAH—Diamond Oil Co., 3, ne 28-8s-4e, recemented at 1310 ft.

WAYNE—Texas Prod. Co., Shipley 1, 5-27-14, fsh 2975 ft. Phillips Pet. Corp., 16-27-16, dr 1385 ft.

WASHINGTON—Ora L. Hiatt et al, ne 30-43-14w, dr 479 ft. Mid-American Oil Co., nw 17-43-15w, dr 1550 ft. C. E. Cline et al, 3, 23-41s-21e, abn. Virgin Pet. Corp., 2, ne 23-41s-12w, td 1593 ft. Zion Oil & Refining Corp., 3, sw 13-31s-12w, sd 756 ft. Ora L. Hiatt or St. George Oil Co., 1, nw 30-43s-14w, dr 479 ft, in lime.

NEW MEXICO

CHAVES—Buffalo-Roswell 1, 24-11-27, sd 4270 ft. McQuigg Bros., Neis 1, 7-5s-29e, dr 3040 ft. Berrendo O. & G. Co., Roswell 1, 5-10-27, sd 725 ft. Manhattan Oil Co., Arena 1, 18-13-31e, sd 3800 ft. Snowden & McSweeney, Merchant 1, nw 27-15s-23e, ready to spd. R. E. Neal et al, Russell 1, 21-14s-25e, dr 1000 ft. Warman et al 1, sw 23-13s-24e, lcn.

DEBACA—Matador Oil Co., State 1, sw 6-

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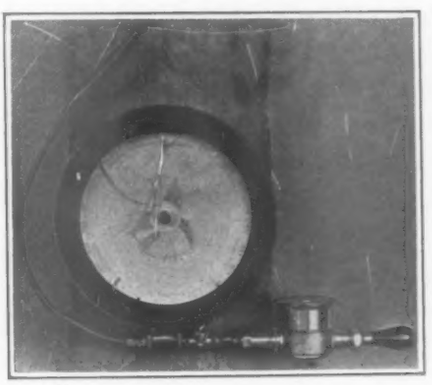
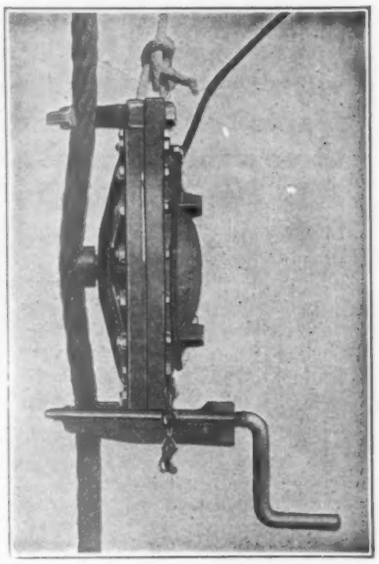


Recording instrument in belt house which writes a permanent graphic record of all operations at the drilling well throughout each 24-hour day.



Bronze case containing rubber diaphragm attached to deadline.

4n-20e, sd 250 ft. Navajo Oil Co., McAdoo 1, ne 16-1s-27e, dr 3310 ft.

GUADALUPE—Hanchett Oil Co., Rutherford 1, 24-8-24, sd 4355 ft.

LEA—Midwest Ref. Co., State 1, 9-19s-39e, fsh 3980 ft. Midwest Refining Co., Farnsworth 19, 12-26-37w, spudding. Marland Oil Co., Eaves 1, 19-26-37, producing 90 million cubic ft at 2968 ft. Marland Oil Co., Sholes 1, 19-25s-37e, dr 2630 ft. Empire Gas & Fuel Co., State 1, 8-21s-35e, dr 1200 ft. Gypsy Oil Co., State 1, 34-21s-36e, dr 1510 ft. Exploration Co., Record 1, ne 25-19s-35e, dr 4165 ft, on new contract.

McKINLEY—Smart & Reid, 7-17-9, rig. Inland Oil Cor., 22-18-10, installing heavier rig. S. Dysart 1, 21-14-9, sd 1700 ft. Williams et al, 30-18-8w, sd 1795 ft.

QUAY—Gibson Oil Corp., 1, 25-8-32, prep to deepen.

SAN JUAN—Continental Oil Co., Munoz 17, dr 5605 ft. T. C. N. Oil Co., Lanier 1, 9-29-11, sd 547 ft. Huntington Park Oil Co., 29-30-9, waiting smaller tools, td 4585 ft. Huerfano Oil Co., Wiltbank 1, 25-29-11, sd 800 ft. San Juan Pet. Co., 1, 9-29-13w, sd 2950 ft. Poole & Peebles, Lawson 1, 9-30n-11w, sd 770 ft. Co-Ne-Mo 1, td 625 ft. Kirtland Drilling Co., Hunt 1, 10-29-15, dr 260 ft. Kutz Canon Oil & Gas Co., Day 1, 29-28-10w, sd 270 ft. Fidelity Oil Co., James 1, nw 23-29-11w, sd 225 ft. Hall et al, nw 31-22n-13w, dr 605 ft. Midwest Refining Co., State 1, se 36-22n-14w, moving in.

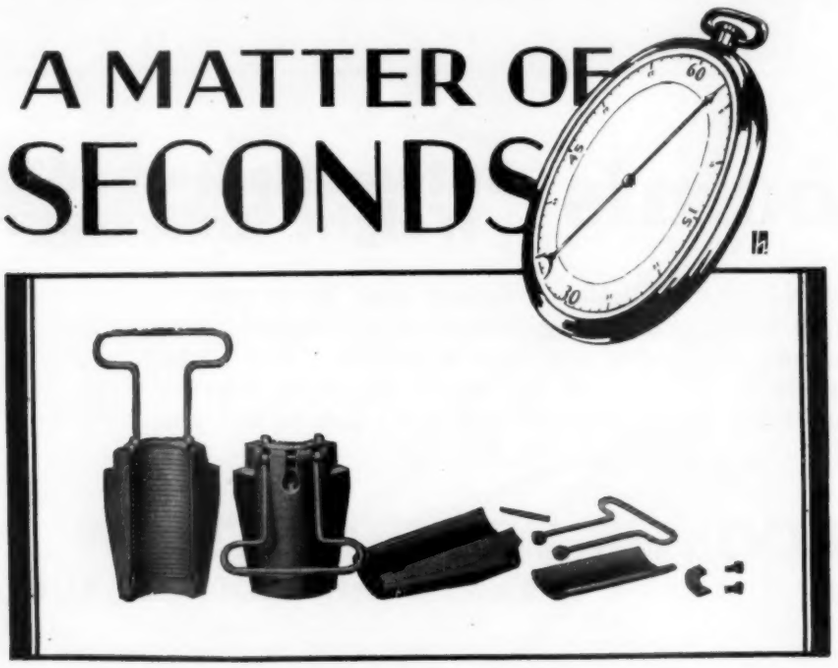
SAN MIGUEL—E. Adams et al, Deason 1, 14-15n-16e, sd 1235 ft.

SOCORRO—Abo Oil Co., 1A, 14-3s-6e, set 12-in at 600 ft and sd.

TORRANCE—Duran Dome Oil Co., 1, 31-2-14, sd 1600 ft. F. G. Wilson, trustee, Pace 1, 12-6n-27, stndg 2215 ft. Bluhall O. & G. Co., 20-6n-10e, dr 1020 ft. Hall et al, Pinos Wells 1, sw 25-3n-13e, dr 300 ft.

VALENCIA—Acme Oil Co., N. M.-Ariz. Land Co., 26-6-3, dr 2710 ft.

A MATTER OF SECONDS



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KANSAS

BARBER COUNTY—T 30, R 14w, Sec 27, Rowland et al's Pickens 1, owd, nec nw ne, drlg 3450 ft. T 31, R 12w, Sec 17, Merriman et al's Winters 1, c e½, drlg 3775 ft. T 33, R 12w, Sec 19, Schaffer et al's Boggs 1, c sw, drlg 5640 ft. T 33, R 13w, Sec 2, Schaffer et al's Carter 1, c se se, fsh 3980 ft. T 34, R 13w, Sec 20, Barton Oil Co.'s Blunk 1, c ne nw, drlg 3570 ft.

BARTON COUNTY—T 17, R 11w, Sec 34, McJolton et al's Evanson 1, sec nw, rog. T 20, R 13w, Sec 12, Everette & Wiley's Ward 1, nwc sw, sd 3940 ft.

BUTLER COUNTY—T 24, R 3e, Sec 22, Flemming et al's Brainard 1, nec nw, lcn. T. 24, R 8e, Sec 5, Mathews et al's Harsh 1, nec sw, drlg 2305 ft. T 25, R 4e, Sec 18, Wichita Drilling Co.'s Joseph 1, nec se nw, drlg 2760 ft. T 27, R 3e, Sec 24, La Rob Oil Co.'s Baysinger 1, nec sw, rig. T 28, R 8e, Sec 21, Burford & Brimm's Ferris 1, sec ne sw, lcn, abandoned.

CHASE COUNTY—T 21, R 7e, Sec 9, Greener, Fowler et al's Carson 1, nec, sd 2505 ft.

CHAUTAUQUA COUNTY—T 32, R 8e, Sec 15, Roth & Faurot's Hamil 1, nwc sw nw, lcn.

CLARK COUNTY—T 32, R 21w, Sec 21, Watchorn O. & G. Co.'s Stephens 3, cel w½ nw nw, drlg 3385 ft.

CLOUD COUNTY—T 6, R 4w, Sec 6, Concordia Oil Co.'s Murdock 1, sec, sd 3590 ft.

COFFEY COUNTY—T 22, R 14e, Sec 8, Finney et al's Mitchell 1, sec ne, 1705 ft td, sd 1345-65 ft, 2,250,000 gas shut in. T 22, R 15e, Sec 11, Clark et al's Douglas 1, nwc se ne, drlg 1235 ft.

COWLEY COUNTY—T 30, R 3e, Sec 3, Vickers Pet. Co.'s Daniels 1, nwc ne, drlg 2625 ft. T 30, R 4e, Sec 6, Roxana & Vernon's Gilmer 1, sec nw ne, rig. T 30, R 6e, Sec 20, Allison & Fitzwilliam's Manley 1, nec nw se, sd 1685 ft; Sec 36, Herron et al's Marshall 1, owdd, swc ne, drlg 2000 ft. T 32, R 3e, Sec 14, Roth & Faurot's Ehmke 1, nec nw, drlg 1320 ft. T 32, R 6e, Sec 18, Lewis Gas Prod. Co.'s Cook 1, nec sw, drlg 3030 ft; Sec 31, Roth & Faurot's Werner 1, nec sw, lcn. T 33, R 4e, Sec 4, White Oil Co.'s White 1, swc ne, drlg 3000 ft. T 34, R 3e, Sec 10, Shawver et al's Amen 1, nwc, drlg 3340 ft; Sec 35, Lewis & Hollis's Newman 1, swc se, drlg 1990 ft. T 34, R 5e, Sec 26, White Eagle's Smith 1, sec ne se, rig.

DICKINSON COUNTY—T 15, R 4e, Sec 23, Kansas Oil Corp. and La Rob's Weber 1, nwc se, rig. T 16, R 4e, Sec 2, Skow & Ritchey's Will 1, c nw nw, lcn. Sec 18, Gilliland Oil Co.'s Schlessner 1, c sw ne, drlg 2284 ft.

ELK COUNTY—T 28, R 13e, Sec 22, Price et al's Thompson 1, cel se sw, sd 400 ft.

ELLIS COUNTY—T 11, R 17w, Sec 2, Streeter & Stearns' Slimer 1, nwc se, lcn. T 12, R 17w, Sec 5, Haworth & Howard's Shutts 1, c ne, lcn; Sec 25, Derby Oil Co.'s Weigle 1, c nw, drlg 3075 ft. T 13, R 19w, Sec 21, Thomas & Moncreif's Boettcher 1, c sw, rig.

FRANKLIN COUNTY—T 16, R 18e, Sec 17, Smith, Thrice & Fisher's Owens 1, cel e½ e½, sd 1450 ft. T 17, R 17e, Sec 25, Omar O. & G. Co.'s Bush 1, sec sw, lcn.

GEARY COUNTY—T 12, R 7e, Sec 10, Pioneer Pet. Co.'s Chase 1, sec, drlg 2320 ft.

GREENWOOD COUNTY—T 25, R 12e, Sec 12, Sheedy et al's Gilroy 1, swc se, 1700 ft td, sd 1369-77 ft, comp for 12 bbls; Sec 30, Smith & Downard's Dickerson 1, sec ne ne, drlg 1300 ft. T 26, R 11e, Sec 28, Paul & Parker's Wiley 1, swc se nw, spud and sd. T 27, R 12e, Sec 6, Obins et al's Cooper 1, nwc sw, drlg 700 ft. T 27, R 13e, Sec 10, Brinegar et al's Lawrence 1, nwc, machine; Sec 15, Mid-Kansas et al's Adams 1, nec sw, drlg 300 ft. T 28, R 12e, Sec 1, Swanson et al's Hayes 1, sec nw ne, 1600 ft, abandoned.

GRAHAM COUNTY—T 8, R 25w, Sec 27, Gulf Coast Drlg. Co.'s St. John 1, owdd, swc nw se, drlg 3490 ft.

HARPER COUNTY—T 34, R 6w, Sec 24,

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1. It must be waterproof.
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3. It must have good adhesive qualities.
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5. It must be incapable of absorption by the soil in contact with it.
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8. It must be capable of practical and speedy application in the field.
9. It must be unaffected by ordinary handling in the field and not damaged by lowering into the ditch.
10. It must be of substantial thickness.
11. It must be economical.

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Say you saw it in The OIL WEEKLY

Amerada Pet. Corp.'s Mendevelle 1, c se se, drlg 5060 ft.

HARVEY COUNTY—T 23, R 2w, Sec 11, Roxana's Houry 1, nec sw se, drlg 1870 ft.

JACKSON COUNTY—T 8, R 14e, Sec 3, Smith et al's Wabunce 1, nec nw, drlg 2530 ft.

JEFFERSON COUNTY—T 9, R 19e, Sec 13, Northern Counties' Edwards 1, sec nw nw, sd 2405 ft. T 10, R 17e, Sec 19, Wichita Oil Co.'s Simpson 1, nwc sw sw, rig.

LABETTE COUNTY—T 33, R 17e, Sec 1, Cowell et al's Hornbeck 1, swc ne sw, sd 1375 ft.

McPHERSON COUNTY—T 17, R 1w, Sec 18, Galt, Brown et al's Fross 1, c ne, drlg 700 ft. T 20, R 3w, Sec 20, Polar Oil Co.'s Grey 1, c nw, spud and sd. T 21, R 3w, Sec 9, Herron et al's Vershell 1, nec, spud and sd.

MARION COUNTY—T 17, R 3e, Sec 13, Rosenthal et al's Talchman 1, nwc sw sw, spud and sd. T 18, R 4e, Sec 21, Skow et al's Fronta 1, swc ne, lcn, abandoned. T 19, R 3e, Sec 7, Davis et al's Rample 1, swc nw, rig. T 20, R 4e, Sec 26, Tidal Oil Co.'s Graham 1, c sw ne, rig.

MEADE COUNTY—T 33, R 28w, Sec 9, Blackwell O. & G. Co.'s Lilly 1, c se, drlg 3825 ft.

MITCHELL COUNTY—T 9, R 7w, Sec 32, Gurley et al's Abercrombie 1, c nw ne, drlg 930 ft.

MORRIS COUNTY—T 14, R 5e, Sec 29, A. A. Oil Co.'s Adams 1, nwc ne se, drlg 900 ft. T 14, R 7e, Sec 32, Klein et al's Barber 1, sec nw, rig. T 16, R 9e, Sec 22, Lambert et al's Southard 1, swc se, lcn, abandoned.

NEMEHA COUNTY—T 3, R 11e, Sec 19, Nemeha O. & G. Co.'s Myers 1, nwc, sd 3050 ft.

OSBORNE COUNTY—T 9, R 15w, Sec 30, Davis et al's Pruter 1, sec sw, drlg 3595 ft.

OSAGE COUNTY—T 15, R 15e, Sec 3, Barber et al's Lease 1, c se se, sd 260 ft. T 15, R 16e, Sec 27, West et al's Baley 1, swc ne, sd 600 ft. T 17, R 17e, Sec 8, Mull Vit Dev. Co.'s Neil 1, nwc sw ne, sd 2930 ft.

POTTAWATOMIE COUNTY—T 9, R 8e, Sec 7, Shaw et al's Washington 1, sec lot 7, rig. T 10, R 12e, Sec 11, Crawford et al's St. Mary 1, swc, sd 2290 ft.

RENO COUNTY—T 22, R 4w, Sec 6, Danciger et al's Williams 1, nec sw se, rig. T 26, R 4w, Sec 5, Empire & Marland's Williams 1, sec ne, spud and sd.

RILEY COUNTY—T 10, R 7e, Sec 20, Welton Oil Co.'s Thierer 1, nwc, sd 3028 ft.

ROOKS COUNTY—T 8, R 16w, Sec 14, Krueger et al's Poor 1, nec, spud and sd. T 8, R 18w, Sec 15, Empire O. & R. Co.'s Dodrill 1, nec se nw, rig. T 10, R 19w, Sec 23, Findiess et al's Catudal 1, nwc se se, drlg 1245 ft.

RUSH COUNTY—T 17, R 17w, Sec 27, Valerious O. & G. Co.'s Schreverman 1, c nw, drlg 1300 ft.

RUSSELL COUNTY—T 13, R 12w, Sec 35, Hartman & Skaer's Taylor 1, c sw, rig. T 14, R 11w, Sec 25, Douglas Oil Co.'s Stobble 1, c e½, drlg 2000 ft.

SALINE COUNTY—T 16, R 3w, Sec 29, Kano Pet. Co.'s Helm 1, c ne, lcn. T 16, R 5w, Sec 6, Estey et al's Peterson 1, c ne, spudding.

SEDGEWICK COUNTY—T 26, R 1w, Sec 12, Gypsy, Marland et al's Wright 1, sec ne se, drlg 1900 ft.

SEWARD COUNTY—T 33, R 33w, Sec 14, Ash et al's Son 1, owdd, nec, drlg 3660 ft.

SHERMAN COUNTY—T 7, R 40w, Sec 20, Hanson et al's Murry 1, owdd, nec sw nw, drlg 2990 ft.

SUMNER COUNTY—T 33, R 3w, Sec 22, Otstot et al's Bartlow 1, sec, sd 1800 ft. T 34, R 2e, Sec 1, Endfield & Foster's Houston 1, c ne sw, drlg 2165 ft. T 34, R 2w, Sec 23, Gypsy Oil Co.'s Douglas 1, nec se nw, ts 4493-4505 ft, made 300 bbls. T 34, R 3w, Sec 4, Jarvis et al's Wernecke 1, sec sw, drlg 4685 ft. T 34, R 4w, Sec 11, Jarvis et al's Wycoff 1, swc nw, drlg 4662 ft. T 35, R 1e, Sec 9, Otstot et al's Volker 1, nwc ne, rig.

TREGO COUNTY—T 13, R 21w, Sec 20, Central Commercial Oil Co.'s Ellis-King 1, nec sw ne, sd 3104 ft.

WABUHSEE COUNTY—T 11, R 10e, Sec 24, Doric Oil Co.'s Jones 1, nec sw, sd 1530 ft. T 13, R 12e, Sec 15, Eskridge Oil Co.'s Henderson 1, nec sw ne, sd 3700 ft.

WOODSON COUNTY—T 24, R 16e, Sec 3, Fees et al's Roberts 1, nwc ne, sd 1418 ft, abandoned.

OKLAHOMA

WOODS COUNTY—T 28, R 18w, Sec 11, George Vincent et al's Freedom 1, c sw, pond.

GRANT COUNTY—T 28, R 3w, Sec 6, Otstot et al's Snyder 1, nec, sd 4518 ft.

HARPER COUNTY—T 27, R 21w, Sec 24, A. F. Kopich Oil Co.'s Selman 1, nec se, spud and sd.

WOODS COUNTY—T 27, R 15w, Sec 20, Sooner State Oil Co. & E. R. Black's Marcum 1, c sw, spud and sd.

GRANT COUNTY—T 27, R 5w, Sec 18, J. W. Bailey's Custard 1, c se, ts 4835-47 ft, 800,000 gas, sd td 4882 ft. T 26, R 4w, Sec 34, Sooner State Oil Co.'s Royce 1, swc nw, sd 550 ft.

KAY COUNTY—T 26, R 2e, Sec 32, J. A. Vincent & Nat'l Union Oil Co.'s McNeal 1, nwc ne, sd 2795 ft.

HARPER COUNTY—T 25, R 22w, Sec 14, Hoffer Oil Co.'s Cooper 1, nwc se, sd 4182 ft.

GRANT COUNTY—T 25, R 4w, Sec 22, Cowden's Vallner 2, nec se ne sw, lost tools 5640 ft, dlg by.

KAY COUNTY—T 25, R 1w, Sec 15, Tonkawa Dev. Co.'s McDaniels 1, sec, bit in hole 4638 ft.

NOBLE COUNTY—T 24, R 3e, Sec 11, Geo. Miller et al's Howe 1, c nw se, spudding. T 21, R 1w, Sec 7, R. L. Corley's Williams 1, sec ne sw, sd 1920 ft. T 20, R 1w, Sec 32, Marland Oil Co.'s Kidd 1, nwc sw, drlg 4960 ft.

CIMARRON COUNTY—T 5n, R 5e, Sec 27, Ramsey Bros.' State Land 1, c nw ne, 4090-4140 ft show 35 bbls, shot 30 quarts, 4670-4680

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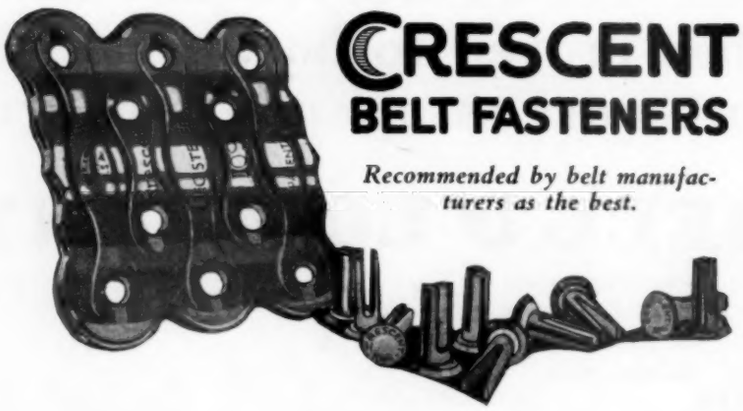

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Sizes 2 inch to 13⅜ inch O. D.

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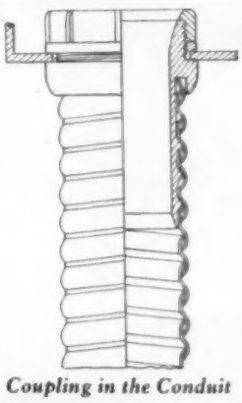

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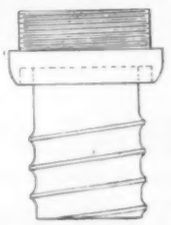

Coupling

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809-813 Public Nat'l Bank Bldg., HOUSTON, TEXAS

ft hfw pb to 4140 ur 6 in, 800 ft wtr show oil.

TEXAS COUNTY—T 2n, R 18e, Sec 23, Connelly, Trammell & Danner's Graves 1, nec sw sw, 315 ft, abandoned. T 1n, R 18e, Sec 11, Three Way Oil Co.'s Price 1, sec nw, 3318-58 ft hfw, sd 3490 ft. T 1n, R 19e, Sec 5, Trammell, Connelly & Danner's Taney 1, sec nw, 280 ft, abandoned.

WOODWARD COUNTY—T 24n, R 17w, Sec 32, Otstot Dev. Co.'s Simmons 1, sec, sd 1500 ft.

GARFIELD COUNTY—T 24n, R 6w, Sec 9, Pulse & Beamer's White 1, sec nw, sd 4720 ft. T 24n, R 3w, Sec 14, Sagar Oil Co.'s Garsarch 1, sec, drlg by csg 4767 ft.

ELLIS COUNTY—T 21n, R 25w, Sec 9, Oklahoma Northern Oil Co.'s 1, c se nw, sd 300 ft.

WOODWARD COUNTY—T 21n, R 19w, Sec 15, Burgoyne Bros.' 1, swc se ne, sd 800 ft. T 21n, R 21w, Sec 25, Sharon's Elmore 1, swc, sd 2778 ft.

GARFIELD COUNTY—T 20n, R 4w, Sec 9, Marland Oil Co.'s Looman 1, nec se, sd 5735 ft; Sec 12, Marland Oil Co.'s Miller 1, swc, sd 4586 ft.

DEWEY COUNTY—T 18n, R 15w, Sec 9, Huckelby & McCoy's Perfect 1, nec, drlg 4038 ft.

LOGAN COUNTY—T 18n, R 3w, Sec 33, Haley & Consolidated Drlg. Co.'s Quier 1, sec sw, drlg 3913 ft hfw. T 17, R 1e, Sec 28, T. B. Slick's Berry 1, swc se, td 5730 ft hfw pb to 4700 ft.

KINGFISHER COUNTY—T 16n, R 7w, Sec 6, Galt, Brown Oil Co.'s Campbell 1, c nw se, sd 4516 ft. T 16n, R 6w, Sec 27, Crawford & McKenna's Stugeon 1, nec sw, sd 4509. T 16n, R 5w, Sec 26, Galt, Brown Oil Co.'s Johnson 1, c nw, sd 4512 ft, dry and abandoned.

LOGAN COUNTY—T 16n, R 1w, Sec 28, Blackford O. & G. Co.'s Lair 1, csl n½ se, sd 1675 ft. T 15n, R 1w, Sec 12, Bu-Vi-Bar's Kirkpatrick 1, c sw, drlg 5460 ft, show wtr.

CANADIAN COUNTY—T 14n, R 6w, Sec 9, A. D. Spear's Piatt 1, sec ne, sd 3223 ft.

OKLAHOMA COUNTY—T 13n, R 3w, Sec 18, Slick & Bailey's Lufkin 1, c ne se, ur 6 in 4238 ft. T 12n, R 3w, Sec 15, Cromwell et al's Thompson 1, swc ne ne, td 6870 ft, 1000 ft tubing and cement in hole.

CANADIAN COUNTY—T 11n, R 7w, Sec 9, Ramsey Bros.' Newman 1, csl ne, drlg 4820 ft. T 10n, R 6w, Sec 1, J. M. V. Bailey's Robinson 1, c ne nw, spud and sd.

OSAGE COUNTY—T 26n, R 7e, Sec 30, Peters & Producers & Refiners' 1, sec ne, drlg 1450 ft. T 23n, R 10e, Sec 7, Sheeders O. & G. Co.'s 1, c ne, Wilcox 2527-54 ft, td 2640 ft, show oil and hfw sd.

PAWNEE COUNTY—T 22n, R 5e, Sec 33, Washoma O. & G. Co.'s Buffalo 1, sec nw, fishg 300 ft.

CREEK COUNTY—T 19n, R 8e, Sec 34, Wood & Wood's McIntosh 1, swc se sw, 1930 ft co.

PAWNEE COUNTY—T 18n, R 3e, Sec 32, Garber, Pulse & Gloyd's Widows 1, nec se nw, sd 1200 ft.

LINCOLN COUNTY—T 17n, R 3e, Sec 20, Willis O. & G. Co.'s Gun 1, nwc se, ts 4636-77 hfw, run 5 in co. T 13n, R 4e, Sec 16, Bu-Vi-Bar's School Land 1, c ne se, sd 4500 ft.

CREEK COUNTY—T 14n, R 9e, Sec 1, L. C. Wheeler & King's Morton 1, sec nw, lcn.

OKFUSKEE COUNTY—T 11n, R 10e, Sec 4, Moose & Daniels' Stidham 1, swc nw, sd 622 ft.

MUSKOGEE COUNTY—T 13n, R 17e, Sec 34, Elk Drlg. Co.'s McKee 1, csl se se se, sd 160 ft. T 13n, R 18e, Sec 33, L. T. Haynie's Linder 1, c se, sd 2003 ft.

PITTSBURG COUNTY—T 9n, R 16e, Sec 32, Pattison et al's McDuff 1, swc nw se, 3 m gas at 5613-35 ft, drlg 5140 ft.

HASKELL COUNTY—T 9n, R 18e, Sec 10, Marion Oil Co.'s Sanders 1, nwc ne sw, 2 m gas at 1800 ft, 6 in at 2310 ft.

LATIMER COUNTY—T 5n, R 18e, Sec 15, Limestone O. & G. Co.'s Murray 1, swc, sd 1700 ft.

CLEVELAND COUNTY—T 10n, R 2w, Sec 22, Cromwell & Franklin's Donavan 1, c sw, sd 4706 ft.

POTTAWATOMIE COUNTY—T 10n, R 3e,

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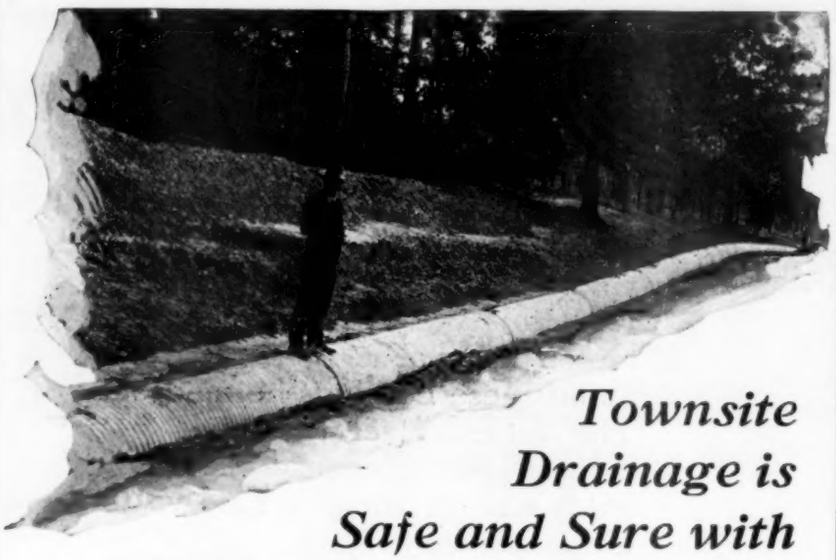

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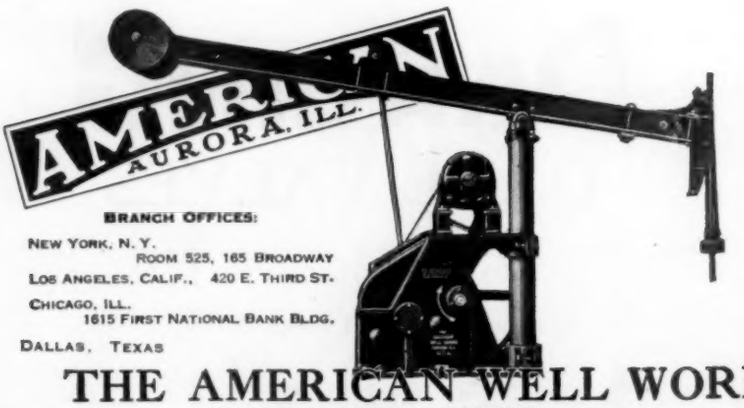

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SEMINOLE COUNTY—T 10n, R 6e, Sec 3, Superior Oil Co.'s Davis 1, swc se, drlg 1618 ft. T 10n, R 7e, Sec 6, Blackwell O. & G. Co.'s Bean 1, sec ne sw, drlg 4157 ft; Sec 18, Shaffer et al's Jones 1, swc ne, drlg 3845 ft, show of oil.

POTTAWATOMIE COUNTY—T 8n, R 2e, Sec 24, Superior's Jones 1, swc nw ne, cemt 6 in at 4410 ft. T 8n, R 4e, Sec 1, Amerada's Gravel 1, swc se ne, td 4485 ft hfw, pb to 4429 ft, shot 40 qts at 4340-80 ft, swab 40 bbls.

HUGHES COUNTY—T 8n, R 10e, Sec 1, Bauer et al's Penn 1, nwc sw ne, rig.

CLEVELAND COUNTY—T 7n, R 1w, Sec 15, Sooner Oil's Vandeveer 1, nec nw sw, drlg 2998 ft.

POTTAWATOMIE COUNTY—T 7n, R 2e, Sec 17, T. B. Slick's Spangler 1, nw se nw nw, drlg 3700 ft.

SEMINOLE COUNTY—T 7n, R 6e, Sec 7, Simon & Beam's Palmer 1, nec nw ne, rig.

POTTAWATOMIE COUNTY—T 6n, R 2e, Sec 10, Davis, Detrick et al's McGahey 1, sec nw, 4988 ft, dry and abandoned. T 6n, R 5e, Sec 16, T. B. Slick's School Land 1, sec, cemtg 8-in 3794 ft, drlg 4333 ft, hf sulphur w; Sec 20, Roxana's Deister 1, nwc se ne, drlg 2716 ft.

SEMINOLE COUNTY—T 6n, R 6e, Sec 1, T. B. Slick's Moore 1, swc ne sw, sd 2870-75 ft hfw, pb to 2775 ft, pump 200 wtr and 7 oil 2760-75 ft.

HUGHES COUNTY—T 5n, R 9e, Sec 17, E. W. Whitney's Huddleston 1, sec sw, rigging up (new hole); Sec 20, C. F. Noble et al's Wickett 1, sec, drlg 2940 ft.

GARVIN COUNTY—T 4n, R 3e, Sec 10, Garland Oil Co.'s Strickland 1, swc nw sw, sandy lime 2701-03 ft, show oil hfw, to set 6-in.

PONTOTOC COUNTY—T 4n, R 6e, Sec 13, American Oil & R. Co.'s Wright 1, nwc ne ne, sd 3215 ft.

HUGHES COUNTY—T 4n, R 9e, Sec 14, Clarke & Cowden's Burrow 1, c nw ne, sd 3500 ft.

PONTOTOC COUNTY—T 3n, R 8e, Sec 10, Douglas Oil Co.'s Johnson 1, c nw nw, drlg 1235 ft.

COAL COUNTY—T 2n, R 8e, Sec 5, Wichtex Oil Co.'s Folsom 1, c nw nw, lcn.

MURRAY COUNTY—T 1n, R 2e, Sec 17, Revels & McGee's Wolfe 1, nwc, 822 ft sd.

COAL COUNTY—T 1n, R 8e, Sec 35, W. E. McGraw et al's Patton 1, swc se ne, lime 1838-1912, shot 105 qts co. T 1n, R 9e, Sec 24, Galbreath et al's Jones 1, swc se, spud and sd.

CUSTER COUNTY—T 14n, R 14w, Sec 1, W. E. Witt's 1, c sw, lcn.

CADDO COUNTY—T 12n, R 11w, Sec 15, Abernathy & Ashton's 1, c nw, lcn. T 10n, R 12w, Sec 28, Magnolia's Shelby 1, swc, drlg 3055 ft.

BECKHAM COUNTY—T 9n, R 22w, Sec 32, O. & H. Pet. Co.'s Barnes 1, nwc ne, owdd, sd 3170 ft.

KIOWA COUNTY—T 7n, R 15w, Sec 35, David Malernee's Van Kirkland 1, nwc, ur 10-in 860 ft. T 6n, R 15w, Sec 6, Johnson & McDowell's 1, c sw ne, sd 1215 ft.

CADDO COUNTY—T 6n, R 12w, Sec 29, W. J. Hartley's Gilbreath 1, sec nw se, owdd, sd 3394 ft.

KIOWA COUNTY—T 5n, R 14w, Sec 17, Blue Mtn. Oil Co.'s Jones 1, sec nw nw, sd 625 ft.

GRADY COUNTY—T 4n, R 7w, Sec 21, Commercial Dev. Co.'s Crisman 1, c ne ne, drlg 2320 ft.

STEPHENS COUNTY—T 2n, R 5w, Sec 20, Martin & Smythe's Vestal 1, c ne se, rur.

COMANCHE COUNTY—T 1n, R 12w, Sec 14, P. Hrbacke & A. E. Korthaus' Wilson 1, c ne sw, owdd, sd 3430 ft.

JACKSON COUNTY—T 1s, R 20w, Sec 33, Stanley McGegor's 1, swc nw sw, lcn.

TILLMAN COUNTY—T 2s, R 17w, Sec 23, A. J. Bundy's Hayter 1, cnl s½ se, sd 400 ft.

KIOWA COUNTY—T 2s, R 16w, Sec 6, Landfair's 1, sec sw se, sd 2464 ft.

COTTON COUNTY—T 4s, R 12w, Sec 16, Guiler & Pyson's Thomas 1, sec sw, rig.

JEFFERSON COUNTY—T 5s, R 8w, Sec

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3. Swabbing grief is reduced to a minimum with the GUIBERSON because the flexibility of the cups allows this swab to pass through indented or partially collapsed casing without sticking. The cups are protected against injury by imbedded steel guide wires. The durability of the special composition cups eliminates the excessive replacement of rubbers.

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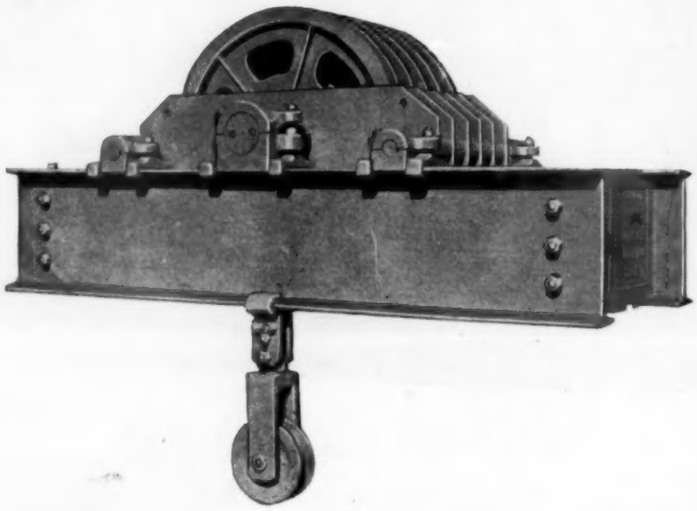
The BOYKIN TYPE "D" CROWN BLOCK



SPEED and ENDURANCE

Operators everywhere will welcome the speed and endurance of the new type "D" Crown Block. With it they are able to speed up their operations, treble the life of their lines and, at all times, feel certain of the utmost performance.

It carries the patented Boykin adjustable feature with roller bearings, self-oiling and perfect balance. The new type "D" embodies all the features that have made the Boykin traveling block a favorite with operators everywhere.

Try One—Be Convinced

Boykin Machinery & Supply Co.

MANUFACTURERS OF "GREYHOUND" EQUIPMENT
BEAUMONT—HOUSTON, TEXAS

BRONZE TO BRONZE
Is the Reason

DART UNIONS
Give Service
Try them

E. M. Dart Mfg. Company
PROVIDENCE, R. I.

The Fairbanks Company
Distributors

28, Amerada's Emerson 1, nwc se sw, drlg 1765 ft.

JOHNSTON COUNTY—T 1s, R 7e, Sec 29, Smity-Kinsley's Lane 1, sec nw, drlg 50 ft. T 4s, R 4e, Sec 18, Wirt Franklin Pet. Corp.'s Wilkes 1, swc se, rur.

MARSHALL COUNTY—T 4s, R 4e, Sec 35, Wirt Franklin Pet. Corp.'s Foster 1, sec sw sw nw, cemt 10 in 742 ft.

JEFFERSON COUNTY—T 5s, R 4w, Sec 8, M. M. Mitcham et al's Newcomb 1, swc se se, drlg 1240 ft.

MARSHALL COUNTY—T 5s, R 4e, Sec 11, Bilbo's Chapman 1, nec nw ne, sd 380 ft.

MOUNTAIN STATES

COLORADO

ARCHULETA—Kansas-Colorado Oil Co., 17-34-2w, sd 1820 ft.

BACA—Marland Oil Co.'s Table Mesa 1, 8-30s-50w, dr 2140 ft.

EL PASO—Grand Union Oil Co.'s John, Jr. 2, 19-1-67w, sd 775 ft.

ELBERT—Botts, Likkick et al, se 1-8s-59, dr 1800 ft.

JACKSON—North Park Oil Co., Goettler 1, 9-6n-82w, sd 506 ft.

JEFFERSON—Wood et al's 1, 30-3s-69, td 1500 ft, undrr 10-in.

LAS ANIMAS—Reiter-Foster and Phillips Pet., 23-29n-56, dr 1055 ft.

LA PLATA—Detroit Oil Assn.'s Olbert 1, 9-35-12w, sd 1610 ft. Royal P. & R. Co.'s Red Mesa 1, ne 27-33n-12w, rig.

LOGAN—Northeastern Colo. Oil Co.'s State 1, 36-8n-55w, sd 5601 ft.

MESA—Eureka Oil Co.'s Holly 2, 24-1s-1e, dr 925 ft.

MOFFATT—Ohio Oil Co.'s Kuykendall 1, 22-21n-11w, sd. Reiter-Foster's State 1, 16-12-100, sd 2240 ft. Yarg Producing & Refining Co., 205, 26-4n-92w, undrr 6¼-in to 3820 ft. Alliance Oil Co.'s Milliken 1, 14-4n-92w, sdtr bit at 3172 ft.

RIO BLANCO—Texas Prod. Co.'s Freeman 1, 27-3-94, dr 5605 ft. Argo Oil Co., sw 9-2s-96w, td ready to sp.

ROUTT—Great Western Oil Co.'s State 1, 17-60n-56w, standing 3504 ft.

WELD—Platte Valley Pet. Corp.'s Patterson 1, 24-6n-61w, sd 3811 ft.

YUMA—Etmyre Synd., m se sw 7-2s-43, dr 805 ft.

WYOMING

ALBANY—Union of Calif. 1, sw nw 35-17n-75w, dr 2220 ft.

BIG HORN—Utah Southern Oil Co., 3, 29-56n-97w, dr 3392 ft. Producers & Refiners 3, 24-56n-98w, dr 1900 ft. Assurance Oil Co. 1, 24-51n-93w, rig. Prescott-Bert 3, 30-51n-92w, sp.

CARBON—Portland Dome Synd., 28-26n-80w, sd for repairs at 340 ft. Simpson Ridge Pet. Co., 34-22n-80w, dr 600 ft. Graybeal Synd., 16-28n-80w, resume at 4500 ft.

CONVERSE—Wind River O. & G. Co., ne 8-32-72, dr 600 ft. Criterion Oil So.'s Irvine 1, 5-31-70, fsh tubing 3180 ft.

FREMONT—Producers & Refiners' Muskrat 1, 34-34-92, dr 3872 ft. Texas Production Co.'s Alkali Butte 1, 1-34-95, dr 3425 ft. Iowa-Wyoming Inv. Co., 30-1s-2e, bottomed at 1500 ft. Martin Falk ne 9-31n-98w, fsh 2280 ft. R. A. Brett et al's Haywire 1, se 29-32n-98w, dr 2100 ft. Solar Petroleum Co.'s 2, se 29-32n-98w, td 1800 ft.

JOHNSON—Fairway Oil Co.'s Crazy Woman 1, 7-47-82, sd 2367 ft. Tarrant Synd., 17-46n-82w, sd 3615 ft.

LINCOLN—Fontenelle Oil Co.'s 1, ne ne 1-24n-113w, sd to refinance, td 1075 ft. Quad States Enterprise, Inc., 11-19n-116w, sp. Midwest Exploration Co.'s Waterfall 1, sw 35-22-115, sp. Viking Oil Co., 33-25-112, sp.

NATRONA—M. C. Weisman et al, se 4-30-81, dr 500 ft.

NIOBRARA—Buck Creek Oil Co., 4-36n-62w, dr 1800 ft.

PARK—Freg G. Ostland's Hoodoo Ranch 1, 23-51-101, td 1740 ft. E. H. Rosenburg, ne 25-58n-98w, dr 1590 ft. Honolulu Oil Corp. and Producers & Refiners' Pitchfork 1, 14-48n-102w, bldg roads. Ohio Oil Co., 27-53-101, cement cracked cas at 2225 ft. Lenco Pet. Co., 20-52-102, sd 150 ft. Julius Peters et al, 17-57-101, lcn. Ydoc Oil Co., 6-15n-101w, sd 745 ft. Calif. Explo. Co., ne 14-48n-102w, moving in. Union of Calif.'s Taylor 1, 22-47-101, repairing

LUCEY LUCEY LUCEY LUCEY LUCEY LUCEY LUCEY LUCEY LUCEY LUCEY

Announcing

the Establishment *of* Offices
and Factory Warehouses *at*

HOUSTON, TEXAS, and SHREVEPORT, LA.

In order to better serve operators of Lucey Rotary Drilling Equipment, we have established offices and will carry our own stores at

1614 MOFFIT ST., HOUSTON, TEXAS
and at
143 BEACH ST., SHREVEPORT, LA.

Engineering service in this territory will be increased and in the future will be found more helpful to our friends and customers.

The T. T. Word Supply Company will, as heretofore, be an authorized Lucey Distributor in South Texas, Louisiana, and Arkansas.

LUCEY PRODUCTS CORPORATION

NEW YORK	TULSA	LOS ANGELES	LONDON
3505 Woolworth Bldg.	224 E. Brady St.	5043 Santa Fe Ave.	54 Old Broad St., E.C., 2
HOUSTON	**SHREVEPORT**	**HEALDTON**	**DUNCAN**
1614 Moffit St.	143 Beach St.		

"WHEREVER THERE'S OIL" LUCEY REG. U.S. PAT. OFF.

Distributors: HOUSTON—T. T. Word Supply Co.
WICHITA FALLS—Bradford Supply Co.
FT. WORTH and WINK—Hercules Supply Co.
TULSA—International Supply Co.
WICHITA—Bridgeport Machine Co.
LOS ANGELES—Oil Well Equipment Corp.

ROUMANIA TRINIDAD

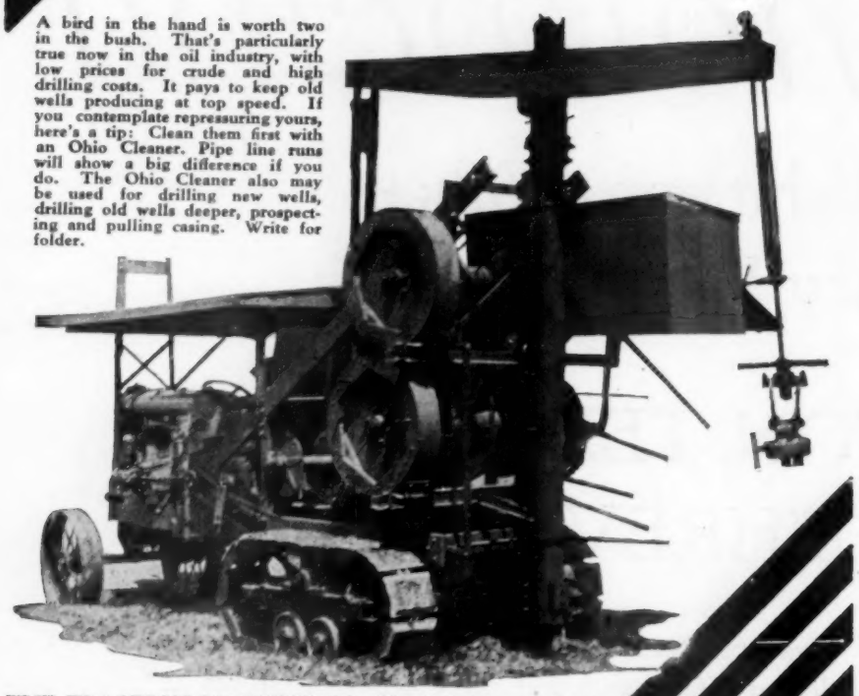
LUCEY LUCEY LUCEY LUCEY LUCEY LUCEY LUCEY LUCEY LUCEY LUCEY

Say you saw it in The OIL WEEKLY

Keep Old Production Up with an

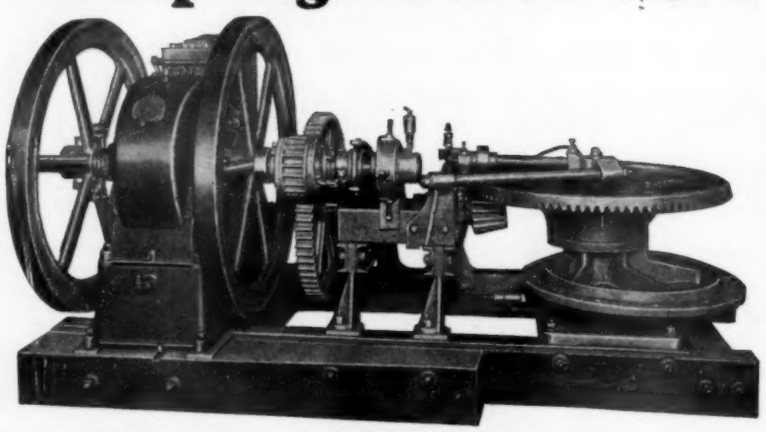
Ohio Cleaner

A bird in the hand is worth two in the bush. That's particularly true now in the oil industry, with low prices for crude and high drilling costs. It pays to keep old wells producing at top speed. If you contemplate repressuring yours, here's a tip: Clean them first with an Ohio Cleaner. Pipe line runs will show a big difference if you do. The Ohio Cleaner also may be used for drilling new wells, drilling old wells deeper, prospecting and pulling casing. Write for folder.



THE TRACTION MACHINE CO., North Baltimore, Ohio

Lightning Oil Well Pumping Power No. 3



Inverted Drive Gear. A Full 18" Stroke.
Main Eccentric Shaft 4½" Dia. Hub Bearing 17" Long.

FULL AUTOMATIC POSITIVE LUBRICATION

Equipped 12 h. p. Stover Engine, Madison-Kipp Lubricator, or without engine, especially built for electric motor drive. Double gear reduction. No Counter shaft required.

Also—Lightning Beam Hangers, Pumping Jacks, Swings, Stuffing Boxes, Etc.

KANSAS CITY HAY PRESS CO., Kansas City, Mo.

dk, td 3725 ft. T. N. Clark, se 11-49n-102w, resume at 692 ft.

PLATTE—Walter Adams, Tr., 13-25-66, dr 2000 ft.

SUBLETTE—Wyo. Prod. Co., sec 30-28n-113w, dr 1905 ft. California Co., 11-29n-115w, dr 700 ft. Lackey et al, 12-28n-114w, redr 500 ft. Minton et al, 4-26n-113w, sd 1445 ft.

SWEETWATER — Prairie O. & G. Co.'s Tucker 1, 18-13-99, tools recovered at 698 ft. Producers & Refiners Corp. and Marland of Colorado, 26-20-104, dr 2000 ft. Tower Pet. Co.'s 1, 6-14n-103w, standardizing, td 2715 ft. Custer Pet. Co., 24-12-100, 10-in cem at 2220 ft. Vermilion Oil Co., sw 16-12-99, rig up.

UINTA—Uinta O. & Dev. Co., 21-51n-120w, cas trouble at 2300 ft. Evanston O. & G. Co., 17-15-120, resume td 2200 ft. California Co., 7-17n-116w, dr 600 ft. Minton et al, 8-18-116, dr 450 ft. P. L. Cooper et al, 10-16-118, will resume. Marlmsbury et al's DeLoney 1, 26-14-118, rigging. Brigman et al, 12-15-118, dr 1504 ft. Whitman et al 18-16-117, dr 900 ft. Deseret O. & R. Co., 8-14n-118w, dr up bailer at 2266 ft.

WESTON—Bose Synd., ne 29-47n-65w, will resume. Allen Oil Co.'s Howard 1, 15-44-64, reun, 12-in.

SOUTHWEST TEXAS

Completions

CALDWELL COUNTY—		
Smith et al, Lancaster 1, Branyon dist.	*	....
The Texas Co., Branyon 1, Branyon dist.	*	....
Dixon et al, Teas 1, Branyon dist.	*	....
Roxana Pet. Corp., Medford 1, Branyon dist.	*	2320
Weinert & Carter, Branyon 1, Branyon dist.	*	2370

CALDWELL COUNTY—Joe Bruner et al's Wilson 1, Luling, td 2570 ft, bailed 20 bbls. Radcliff et al's Briscoe 1, 3 mi ne Luling, dr 2548 ft shale. United North & South Dev. Co.'s Tiller 2, Luling, dr 7365 ft; Kelly 1, Luling, dr 7709 ft. Datex Oil Co.'s August 1, Branyon district, td 2400 ft, reaming. Smith et al's Lancaster 1, Branyon district, abn. The Texas Co.'s Branyon 1, Branyon district, abn; Branyon 2, Branyon district, pumping 72 bbls. Davis et al's Young 1, Branyon district, td 2115 ft, 500 ft fluid in hole. Dixon et al's Teas 1, Branyon district, abn. Roxana's Medford 1, Branyon district, abn at 2320 ft. Weinert & Carter's Branyon 1, Branyon district, abn at 2370 ft. Luling O. & G. Co.'s Carter 2, Luling, dr 2660 ft. T. C. Hadley's Wilson 1, Luling, dk.

DUVAL COUNTY—National Oil Co.'s Ball 1, sd 2185 ft. R. Driscoll's Fee 12, showed oil in slush pit while drilling around 1600 ft.

HIDALGO COUNTY—Dale Smith's Daskan 1, sd 3235 ft. Queen Citl O. & G. Co.'s American Land & Irrigation Co. 2, 3 mi n Mercedes, sd 700 ft.

JIM WELLS COUNTY—Cushing Oil Co.'s Perez 1, 3 mi n Alice, sd 1548 ft.

MAVERICK COUNTY—Rycade Oil Corp.'s Chittam 1, Eagle Pass, td 5630 ft; Chittam 2, Eagle Pass, fsh 5835 ft. Ryan Consolidated's India Land Co. 1, 24 mi se Eagle Pass, fsh 4400 ft.

NUECES COUNTY—May et al's Gallagher 1, dr 150 ft gbo. Grimm & Morris' Garrett 1, Aqua Dulce, sp.

SAN PATRICIO COUNTY—National Oil Co.'s McMullen Sur. 1, dr 3225 ft shale.

STARR COUNTY—The Texas Co.'s Guerra 1, near Roma, dr 3633 ft, hard sand.

VAL VERDE COUNTY—East Del Rio's Weatherbee 1, sd 3335 ft. Thraves et al's Wilson 1, sd 1125 ft. Valvert Oil Co.'s Bassett 1, sp.

TEXAS GULF COAST

Completion

FORT BEND COUNTY—		
G. M. Goldsmith, Raesmaer 1, Needville	*	950

AUSTIN COUNTY—Humble's Bracey 1, Raccoon Bend, bldg dk; Grawunder A-1, Raccoon Bend, dr 3987 ft sand and shale. L. H. Weddock's Ward 1, sd 2025 ft.

BRAZORIA COUNTY—Roxana's Randon 1, Allen Dome, coring sand and shale, odor of oil at 5040 ft; Poole A-2, Allen Dome, dr 356

PLAIN FACTS *About* SUCKER RODS

¶ Seventy-five per cent of all sucker rod trouble is due to improper handling and care. Not even Jones High Manganese Sucker Rods, which are 10,000 to 40,000 pounds per square inch stronger than ordinary rods, can be expected to give the long service for which they are noted, unless reasonable care is observed.

¶ Therefore avoid kinking. Be careful in running rods back into the well. New rods should be placed in the well one at a time so that proper stabbing of joints can be obtained and to insure every joint being made up properly. In pulling rods keep slack out of rod line and prevent elevator from sliding down on rod. Remember that a kinked sucker rod can be expected to break at any time.

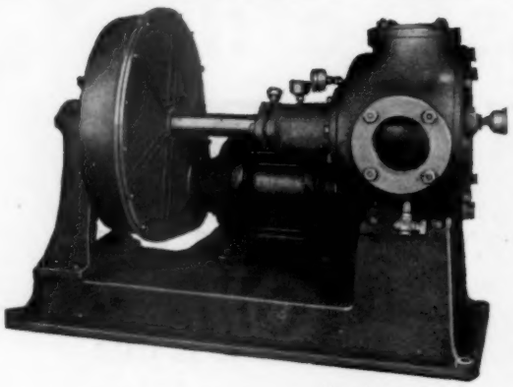
¶ These simple precautions in the use of Jones H. M. Sucker Rods will give you all the superior advantages which are originally built into every Jones Sucker Rod.

THE S. M. JONES COMPANY

TOLEDO, OHIO *Tulsa Office:* 422 McBIRNEY BLDG.

JONE SUCKE RODS

VIKING Standard Motor Driven Pump



Especially suitable for handling large volumes quickly and efficiently. Note the compactness of the entire unit.

Mounted on cast iron base. Connected by means of fibre pinion and machine cut gears that run in oil tight case.

Extra heavy construction throughout, assures years of satisfactory service.

Manufactured by

Viking Pump Company

Sold by

Southern Engine & Pump Co.

HOUSTON, TEXAS

BUY OR RENT USED PIPE

and Save the Difference

We have the following pipe in the Panhandle District that was purchased new and used in one well:

3600′ 6⅝″ 24-lb. seamless casing.	1200′ 12½″ 50-lb. casing.
200′ 20″ 90-lb. casing.	2000′ 10″ 45-lb. casing.
500′ 15⅓″ 70-lb. casing.	2800′ 8¼″ 32-lb. casing.

Will rent this casing or any other pipe which you may need. Let us finance your operations by carrying your pipe and casing investment for you.

BRANCH STORES
Wichita Falls, Holliday, Vernon, Breckenridge, Texas

EASTERN HEADQUARTERS
Butler, Penna.

Keystone Pipe & Supply Co.

HOLMES BUILDING
FORT WORTH, TEXAS

CARBON (BLACK DIAMONDS) FOR DIAMOND CORE DRILLS

—IMPORTERS—
INDUSTRIAL DIAMONDS
—MANUFACTURERS—
DIAMOND POINTED TOOLS FOR ALL MECHANICAL PURPOSES

WRITE OR WIRE FOR CATALOGUE AND FULL PARTICULARS

THE DIAMOND DRILL CARBON CO.

PARK ROW, NEW YORK, N.Y. CABLE ADDRESS, CREDOTAN, N.Y.

ft sand. Gulf's Perry 4, Stratton Ridge, dr 2740 ft gbo. Leonard Pet. Co.'s Widom 3, Damon Mound, preparing to pump at 1960 ft. McNellie Oil Co.'s Bartlett 1, West Columbia, dr 3510 ft sand.

CHAMBERS COUNTY—Pure Oil Co.'s Lost River 1, Lost Lake dome, sd at 3819 ft; Old River 1, Lost Lake done, set surface cas at 265 ft; Little Lost Lake 1, Lost Lake dome, dr 1605 ft; Trinity River 1, Lost Lake dome, dk; Lost River Lake 1, Lost Lake dome, dk; Cut-Off Bayou, Lost Lake dome, dk. R. L. Bartlett's Fisher 1, Barbers Hill, sd 2160 ft.

COLORADO COUNTY—Rich Oil Corp.'s Von Rosenberg 1, 2¼ mi ne Columbus, sd 2700 ft. Johnson Bros.' Beckett 1, e of Sheridan, dr 2065 ft shale.

FORT BEND COUNTY—Sun Oil Co.'s E. C. Farmer 2, Boling, dr 2665 ft lime; Kaspareck 3, Boling, dr 3545 ft; H. R. Farmer 6, Boling, dk. Gulf's Trone 8, Long Point, dr 2870 ft; Wolf 9, Long Point, dr 800 ft; Moore 16, Moore's Field, dr 1400 ft. Humble's Brazos Farm 1, Sugarland dome, reaming 2915 ft; Sugarland Industries 2, Sugarland dome, dr 1895 ft gbo; Deathridge 1, Sugarland dome, ru. J. H. Diehl's Armstrong 1, 2 mi e Boling, dr 365 ft. G. M. Goldsmith's Raesmer 1, Needville, abn at 950 ft.

HARRIS COUNTY—Torsen et al's Stewart 1, 4 mi sw Genoa, dk. J. A. Hautier's Grouse 1, Greens Bayou, dr 200 ft. Hunt et al's Lobit 1, 4 mi n Goose Creek, fsh 2148 ft. Humble's Warren 4, Hockley, dr 2308 ft sandy shale. Cedar Bayou Oil Co.'s Johnston 1, 8 mi n Goose Creek, dr 1025 ft sand. The Texas Co.'s House 21, n extension Humble field, dr 2355 ft.

JEFFERSON COUNTY—Deep Test O. Co.'s McFaddin 1, 4 mi ne Spindle Top, sd 2175 ft. Gulf's Bordages 6, Fannett, dr 2575 ft. So. Spindle Top O. & Dev. Co.'s Young 1, 1 mi w Nederland, sd 3425 ft. Port Arthur O. & Dev. Co.'s West 4, Westbury, dr 4350 ft gbo. A. M. Deems et al's Mashman 2, 1 mi s Voth, lcn. The Texas Co.'s Gladys City 1, Spindle Top, tested salt water, will deepen from 4630 ft. Beaumont Oil Co.'s Tyrrell 1, 2 mi w Brooks, dk. Oswald Dome Syndicate's Oswald 1, 2 mi se Chelk, ru.

LIBERTY COUNTY—Barlow et al's Minchcliff 1, 2½ mi ne Cleveland, sd 2215 ft. The Texas Co.'s Green 4, nw extension S. Liberty, dr 2672 ft; Pickett 2, S. Liberty, lcn. Big Dome Interests' Finley 1, 2½ mi nw Hardin, coring sand 2870 ft. Harrison Oil Co.'s Quintette 3, N. Dayton, dr 3220 ft gbo and lime. Humble's Sterling 1, Moss Bluff, dr 750 ft; Welder 8, S. Dayton, ru. Sun Oil Co.'s Kyle 1, Moss Bluff, dr 750 ft gbo.

MATAGORDA COUNTY—Matagorda County Dev. Co.'s Hawkins 1, Bay City, sd 1985 ft. Dr. Griffith et al's Robbins 1, e Citrus Grove, lcn; Baer 1, 1½ mi n Gulf, dr 375 ft shale. Gulf's Vinyard 1, Hawkinsville, coring sand 3875 ft.

SOUTH LOUISIANA

Completions

Company, Well and Location	Initial Production Bbls.	Total Depth
CALCASIEU PARISH—		
Union Sulphur Co., Fee 725, Sulphur dome	2800	3425
Fee 727, Sulphur dome	1800	4050
CAMERON PARISH—		
Yount-Lee Oil Co., State Land 11, Kelso Bayou dome	2400	3945
IBERIA PARISH—		
Jefferson O. & Dev. Co., Jefferson Island 2	*	5948

ASCENSION PARISH—Gulf's United Lands Co. 8, Sorronto dome, ru. Acme Prod. Co.'s De Haas-Eby 1, Sorrento, dk. Triumph Oil Corp.'s Lacey et al 1, 1½ mi se Sorrento, ru.

CALCASIEU PARISH—Union Sulphur Co.'s Fee 725, Sulphur dome, completed for 2800 bbls 22 gravity pipe line oil on ¾-in choke at 3425 ft; Fee 726, Sulphur dome, dr 3010 ft gbo; Fee 727, Sulphur dome, completed for 1800 bbls pipe line oil on ¾-in choke at 4050 ft; Fee 728, dk; Fee 729, lcn; Fee 730, lcn.

CAMERON PARISH—Pure Oil Co.'s Sweet Lake 2, Sweet Lake, waiting on rig to deepen; Sweet Lake 3, Sweet Lake, dr 6030 ft; Sweet Lake 4, Sweet Lake, flowing 100 bbls oil; Sweet Lake 5, Sweet Lake, flowing 3500 bbls per day. La. Land & Explo. Co.'s Calcasieu Lake B-2,

½ mi ne Kelso Bayou dome, set cas at 940 ft; Calcasieu Lake A-2, Kelso Bayou, driving piling for dk. Calcasieu Oil Co., Magnolia Pet. Co. and Union Sulphur Co.'s Doiron 2, Kelso Bayou Dome, dr 4609 ft sand; Caldwell 3, Kelso Bayou dome, reaming to test at 4084 ft, hit salt at 4184 ft. Watkins 4, Kelso Bayou dome, sdtr at 2700 ft, td 3800 ft; Watkins 5, Kelso Bayou dome, set cas at 3986 ft; Watkins 6, Kelso Bayou, ru; Watkins 7, Kelso Bayou, lcn; Watkins 8, Kelso Bayou, lcn; Valery 1, Kelso Bayou dome, set 10-in cas at 960 ft; Olevia 2, Kelso Bayou, ru. Noble et al's Ellender 1, Hackberry, sd 4490 ft. Roxana's Watkins 2, Black Bayou district, ru. Yount-Lee Oil Co.'s State Land 9, Kelso Bayou, flowing 800 bbls oil; State Land 11, Kelso Bayou dome, completed for 2400 bbls initial, pipe line oil, now making some water.; State Land 12, Kelso Bayou dome, driving piling for dk; State Land 13, Kelso Bayou dome, ru; State Land 14, State Land 15, State Land 16, and State Land 17, lcns.

IBERIA PARISH—La. Land & Explo. Co.'s Vermilion Bay A-2, dr 2275 ft rock. Gulf's State Z-5, Loreauville, dr 100 ft; Kling et al's 1, Loreauville, dr 250 ft. Jefferson O. & Dev. Co.'s Jefferson Island 2, abn at 5948 ft.

IBERVILLE PARISH—Union Sulphur Co.'s Schwing 2, Bayou des Glaise dome, sd 3175 ft. Roxana's Wilbert 2, White Castle dome, dr 956 ft hard sandy lime. Grosse Tete O. & G. Co.'s Wilbert 1, ru.

JEFFERSON DAVIS PARISH—Indiana-La. Oil Co.'s LeDoux 1, dr 1629 ft gbo. Welch Pet. Co.'s Purveiance 1, Welsh, dr 2782 ft gbo

LA FOURCHE PARISH—Gulf's Stark 4, Thibodaux, dr 867 ft.

ST. MARTIN PARISH—Rycade's Fee 3, Bayou Bouillion dome, dr 3228 ft sand; Fee 4, Bayou Bouillion dome, dr 995 ft gbo; Fee 5, Bayou Bouillion, dk; State 1, sp; Martin 1, ru. Yount-Lee Oil Co.'s Louisiana Pet. Co. 1, Anse la Butte, dr 1250 ft gbo. A. G. Broussard's Bergeron 1, Anse la Butte, sd 3910 ft, td salt water.

ST. MARY PARISH—J. Dannenbaum's Viguerrie 1, Charenton Beach, dr 2250 ft gbo.

WEST FELICIANA PARISH—Foster & Roberson's Raccourci 1, lcn.

WEST TEXAS

Completions

FISHER COUNTY—
Sinclair O. & G. Co., Steele 1..... 820 3225

REAGAN COUNTY—
The California Co., University 4.... 20 3106

ANDREWS COUNTY—Deep Rock Oil Co.'s Harris 1, elev 3173 ft, top salt 1705 ft, dr 3275 ft.

BORDEN COUNTY—E. L. Doheny et al's Koonsman 1, rig.

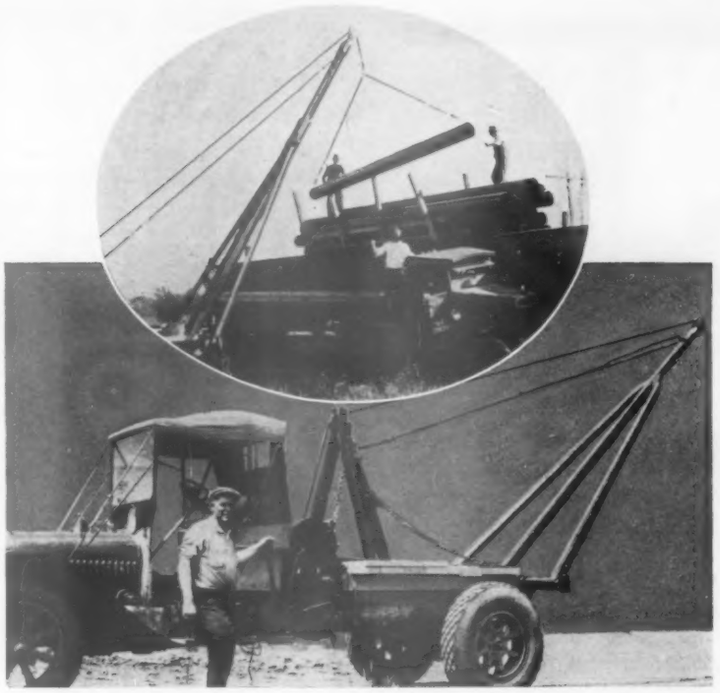
BREWSTER COUNTY—Cowden-Cole et al's Jackson-Harmon 1-A, dr 665 ft. Forrest Oil Co.'s Skinner 1, co with hfw 1090 ft. Reese & White's Kimball 1, hfw 1790 ft, dr 1807 ft.

COKE COUNTY—Lipan Oil Co.'s Rawlings 1, dr 2785 ft.

CONCHO COUNTY — Douglas Oil Co.'s Harral 1, dr 1550 ft.

CRANE COUNTY—Church & Fields' University-Duoll 2, rig. C. C. Duffey et al's Cowden 1, top salt 685 ft, dr 1905 ft. Gulf's Waddell 4, elev 2735 ft, top salt 1185 ft, dr 2485 ft. J. K. Hughes et al's State Bank Fee 1, elev 2463 ft, top salt 525 ft, dr 1570 ft. Humble's University 1-C, top salt 1035 ft, dr 2795 ft. TP Coal & Oil Co.'s University 1, top salt 1090 ft, dr 2460 ft. The Texas Co.'s University 2, top salt 1005 ft, dr 2020 ft.

CROCKETT COUNTY—Geo. H. Anderson & Williams' University 1, sd 2008 ft. The California Co.'s Powell 1, dr 720 ft; Powell 2, top salt 1084 ft, dr 1230 ft. Compton & Co.'s University 1, spudding. W. W. Donnelly et al's Massie 1-A, dr 250 ft; Todd 1, set cas to test good show oil with water, td 1681 ft; Shannon-Middlebuster 2, (Sec. 18) dr 100 ft; Shannon-Powell 1, spd and sd. Gulf's Powell 3-D, top salt 1985 ft, dr 1465 ft; Thompson 1-A, elev 2227 ft, top salt 420 ft, top lime 1715 ft, fsh 1955 ft. Humble & Marland's Powell 4-B, elev 2679 ft, top salt 1040 ft, dr 2215 ft. McMan O. & G. Co. and Amerada Pet. Corp.'s Powell 1, dr 505 ft. Marland Prod. & Pecos Oil Co.'s University 1, dr 1345 ft. Renee Oil Co.'s University 1, elev 2692 ft, top salt 1100 ft, dr 1465 ft. Republic Prod. Co.'s Powell 1-B, top salt



"This Crane Saved Us $400.00 PER DAY"

—Keiser Transportation Co.

Loading from car to truck 3 to 4 joints of 20" casing per minute, the Hobbs truck crane increases by four times, the loading speed of any job. Contractors are using this crane to save hours of loading time each day . . . thousands of dollars in money each week . . . and cut to a minimum accidents and wear and tear on equipment. Keiser Transportation Company is a typical example.

The Hobbs heavy duty (shown above) is operated by a power winch, driven by the truck's motor. The crane capacity is limited only to the weight of the front part of the truck and the angle at which the mast is operated. Jacks are provided to take the strain off the rear springs.

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1045 ft, dr 1610 ft. W. R. Simmons & Marland's University 1, elev 2522 ft, top salt 875 ft, sd 1130 ft. Taylor-Link Oil Co. and Kirby Pet. Co.'s Powell 2, elev 2747 ft, top salt 1070 ft, sd 2500 ft; Peck 1, elev 2379 ft, show oil and gas 831-36 ft. Tidal Oil Co.'s University 1, top salt 1225 ft, dr 1420 ft. Transcontinental's Atwood 1, elev 2555 ft, top salt 513 ft, top lime 1890 ft, dr with hfw 1975-95 ft. P. R. Whonlich & Co.'s Shannon 1, lcn.

CULBERSON COUNTY — Deep Rock Oil Co.'s Dettis 1, spd and sd. Dittman Drilling Co.'s Miller 1, sd 1767 ft. J. M. Hickey et al's Finley 1, dr 1385 ft.

JEFF DAVIS COUNTY—Humble's Flores 1-A, elev 4239 ft, sr 5005 ft. Sam F. Means & G. M. Ball's J. Z. Means 1, dr 2805 ft.

ECTOR COUNTY—Texas Co. & Cosden & Co.'s Connell 6, elev 2876 ft, top salt 950 ft, top lime 3233 ft, dr 3375 ft.

EL PASO COUNTY—C. E. Sillix et al's Malone 1, sd 605 ft.

FISHER COUNTY — Cranfill-Reynolds & Sun Oil Co.'s Willingham 1, ur 1400 ft. R. W. Rainey et al's Marberry 2, elev 1929 ft, top lime 2995 ft, testing show oil and water 3285-89 ft.

GARZA COUNTY—Emerald Oil Co.'s J. M. Boren 3, elev 2363 ft, dr 4420 ft. Latimer & Waggoner's Cross 1, lcn. Marland Prod. Co.'s Pippen 1, elev 2565 ft, dr 3560 ft.

GLASSCOCK COUNTY — Landreth Prod. Corp.'s A. L. Houston 2, lcn. Meriweather Oil Co.'s McDowell 2, elev 2522 ft, top salt 1000 ft, top lime 2510 ft, dr 2725 ft. Roxana Pet. Corp.'s Boston 1, re-set cas 920 ft. World Oil Co.'s McDowell 1-B, elev 2523 ft, dr 105 ft.

TOM GREEN COUNTY—Rinker et al's Jones 1, sd 350 ft. McLaughlin & Ridge's Holder 1, hfw, dr 2075 ft.

HOWARD COUNTY—Amerada & Rycade Oil Corp.'s Roberts 1, spudding; Stewart 1, dr 905 ft. Bristow & Merrick's Hooks 5, dr 1705 ft; Hooks 6, set cas 1574 ft; Hooks 7, rig. Cosden & Co.'s Roberts 1-A, dr 1360 ft; Roberts 2-A, dr 380 ft; Roberts 3-A, rig; Roberts 4-A, lcn. W. W. Donnelly et al's Clay 1, coring 1388 ft. F-H-E Oil Co.'s Roberts 1-C, sd 1960 ft. F-H-E Oil Co. and Moody Corp.'s Roberts 3-E, machine. Godley O. & G. Co.'s Hooks 5, dr 740 ft. Gulf's Clay 1, cem cas 1602 ft. Greene O. & R. Co.'s Clay 1, spraying 100 bbls oil 1685-90 ft, dr 1710 ft. Henshaw et al's Eason-Settles 1, co 1925 ft. Laurel O. & R. Co. and Virgil Hicks' Read 1, dr 555 ft. Magnolia's H. Hyman 1, elev 2360 ft, pb from 3615 to 2770 ft for shot; O'Daniel 2, rig; Roberts 4, elev 2704 ft, dr 1145 ft; Roberts 7, elev 2769 ft, dr 1665 ft; Roberts 8, dr 1575 ft. Marland Prod. Co.'s Chalk 3-E, rig. Mays-Nixon et al's Flowers 1, elev 2497 ft, sd 2517 ft. Merrick & Lamb's Clay 4, dr 550 ft. Owen-Sloan Oil Co.'s Roberts 4, elev 2744 ft, dr 2390 ft; Roberts 5, dr 105 ft. Sun Oil Co.'s Settles 2, cased off hfo 2490-2557 ft, dr 2605 ft.

HUDSPETH COUNTY—Western States Oil Co.'s Gardner-Moseley 1, dr 2650 ft; S. W Moore 1, sd 2240 ft.

IRION COUNTY—Empire G. & F. Co.'s Sawyer 1, rig. Kimbrough & Tuel's Nutt 1, sd 1155 ft. Pat Markey et al's Thomson 1, rig. Mertzon Oil Co.'s Roach 1, dr 480 ft. L. P. Powell et al's Horney 1, sd 970 ft. F. E. Webb et al's Nutt 1, elev 2354 ft, sd 1590 ft. W. West et al's Suggs 1, spd and sd. Whitmer Oil & Gas Properties' Mayer 2, dr hfw 1255 ft.

JONES COUNTY — Campbell & W. G. Clark's Dickinson 1, spudding. Cowboy Evans et al's King 1, dr 245 ft. Hucony Gas Co. et al's Tiner 2 and 3, lcns. Hurley Oil Co.'s Gunther 1, dr 755 ft. Ohio Fuel Oil Co.'s McCreight 1, lcn. Phillips Pet. Co.'s Mason 3, dr 400 ft; Sharp 1, rig; Winters 3-A, dr 1775 ft; Winters 6, dr 3495 ft. Robert Oil Corp.'s Grayson 1, rig; Grayson 2, dk. Snowden & McSweeney's Bickley 1, spudding. Roeser- Pendleton & Stebbins O. & G. Co.'s Higgs 2, dr 1805 ft. Teas & Wheeler's H. Sayles 1, dr 1930 ft. Texas Co. and Gibson-Johnson's L. Carter 1, rig.

KENT COUNTY—Cosden & Co.'s Bilby 1, dr 310 ft.

KING COUNTY—Humble's Pitchfork 1, sd 4035 ft. Texas Co.'s Johnson 1, spudding.

LOVING COUNTY—Delaware Oil Co.'s Lockhart-Ramsey 1, sd dry after shot, td 4426 ft. Lockhart & Co. et al's Bowers-Wells 1, dr 410 ft; Hubbard 1, rig; Fee 1, sd 3000 ft; Lepp 2, elev 2651 ft, top black lime 4128 ft, co for

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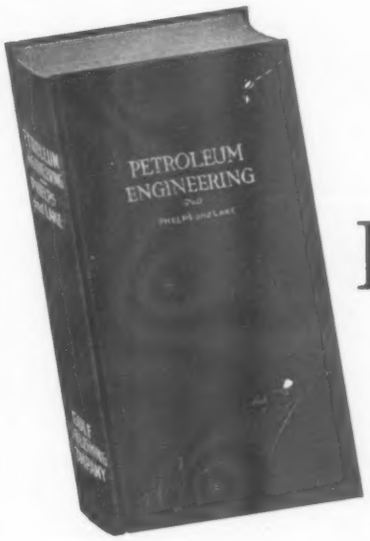

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LYNN COUNTY—Elpo Oil Co.'s Nevels 1, top salt 2570 ft, sd 2720 ft.

MARTIN COUNTY—Phillips Pet. Co.'s Slaughter 1, dr 2025 ft.

MENARD COUNTY—Carpenter & Robbins' Kothman 2, sd 620 ft. Moody Corp.'s Allison 1, elev 2053 ft, dr 2095 ft. Panhandle Ref. Co.'s Eckhardt 1, dr 1090 ft. Sorrells et al's Wilhelm 1, dr 180 ft.

MIDLAND COUNTY—O. H. Shoup et al's Parks 1, elev 2871 ft, top salt 1740 ft, co 2755 ft.

MITCHELL COUNTY — Owen-Sloan Oil Co.'s Boren 1, sd 910 ft.

NOLAN COUNTY—Herbert Oil Co.'s Pepper 1, rig.

PECOS COUNTY—Amerada Pet. Corp.'s Dillon 1, sd 870 ft. G. H. Anderson et al's University 1, elev 2801 ft, top salt 1030 ft, top lime 1715 ft, sd 1880 ft. Alexander & Lyles' Sellman 1, sd 500 ft. Bateman & Price's Pecos River 1, elev 2227 ft, top salt 565 ft, dr 710 ft. Benedum & Trees' Corder 1-A, crooked hole 285 ft. Cosby Oil Co.'s Smith 1, dr 755 ft. Diamond Pet. Co.'s Blackstone-Slaughter 1, sd 1075 ft. M. Z. Dibble et al's Bonebrake 1, elev 2555 ft, sd 1170 ft. Dittto Oil Co.'s Montgomery 1, spd and sd. Cowboy Evans et al's S. Byrens 1, sd 280 ft. Bob Elmore et al's M. Holmes 2, elev 2150 ft, sd 1440 ft. Ferrell et al's University 1, rig. Furman Pet. Co.'s McNear 1, spudding. Mays-Nixon & Co.'s Perry 1, dr 430 ft. Mid-Kansas O. & G. Co.'s Pryor 1, elev 2790 ft, top salt 1465 ft, top lime 3200 ft, dr by tools 3330 ft. Olean Pet. Co.'s Harral 1, dr 395 ft. Phillips Pet. Co.'s Heyman-Nutt 1, elev 2943 ft, dr 1445 ft. Roxana & Kirby Pet. Co.'s University 1, elev 2620 ft, dr 1815 ft. Southern Crude Oil Pur. Co.'s Scarbauer 1, elev 2680 ft, trace gas 1455-65 ft, dr 2000 ft. Sun Oil Co.'s University 1, bad hole 350 ft. B. J. Spikes et al's Brown 1, elev 2387 ft, sd 665 ft. Transcontinental Oil Co.'s University 1, elev 2552 ft, top lime 1035 ft, dr 2765 ft. Vacuum Oil Co.'s Elsinore 1, elev 3554 ft, dr lime 3270 ft. World Oil Co.'s M. Cerf 1, elev 3435 ft, dr 3430 ft; Kloh 1, elev 2810 ft, sd 2010 ft.

PRESIDIO COUNTY — Empire-Delmar et al's Tootle 1, rig.

REAGAN COUNTY — Herbert Oil Co. & Moody Corp. et al's Walters 1, elev 2765 ft, top salt 1120 ft, sd for cas 2072 ft. Roxana Pet. Corp.'s University 1, elev 2674 ft, top salt 1120 ft, top lime 2393 ft, dr 2540 ft. Texon O. & L. Co.'s University-McBurnett 1, dr 775 ft; University 1-B, fsh with hfo 8230 ft.

REEVES COUNTY—Eastland Oil Co.-Vacuum & Geo. Lyles' Campbell 1, rig. Exploration Co.'s Kinney 1, elev 2847 ft, dr up lugs 2900 ft. E. W. Brooks & Thompson's Eddins 1, elev 2719 ft, dr hfw 5540-85 ft. McRobie et al's Bell 1, sd 440 ft.

RUNNELS COUNTY — Agnew & Fields' Russell 1, dr 1630 ft. Gison & Johnson's Rainwater 1, dr 210 ft. H. L. Griswold & Royal Pet. Co.s Willingham 1, dr 2345 ft. Hamilton et al's Spill 1, materials. Henry B. May et al's Schneider 1, elev 1666 ft, sd 2210 ft. Marland Prod. Co.'s Russell 1, elev 1845 ft, dr with hfw 3060 ft. Marland & E. L. Smith Oil Co.'s Herring 1-A, dr 2735 ft. Pure Oil Co.'s H. Giesecke 1, lcn. R. B. Summers et al's Reese 1, sd 1655 ft. Vacuum Oil Co. et al's Flannagan 1, elev 1767 ft, dr 2475 ft; Fowler 1, elev 1706 ft, cem cas 1579 ft. Robt. Watchorn et al's King 1, elev 1660 ft, sd 3732 ft.

SCHLEICHER COUNTY—Long Bros. et al's Williams 1, rig.

STERLING COUNTY—Manhattan Oil Co. et al's Ellwood 1, rig.

STONEWALL COUNTY — Henshaw Oil Corp. et al's Moore 1, dr 2480 ft.

TERRELL COUNTY—Big Bend Oil Co.'s Bassett 1, lcn at c nw¼ Sec 155, Blk "D" MK&T Ry sur, rigging up. Champlin Ref. Co.'s Carter 1, elev 2884 ft, dr 2765 ft. Deep Rock Oil Co.'s Noelke 1, elev 2405 ft, top lime 1130 ft, dr 2940 ft. Humble O. & R. Co.'s University 1, elev 2284 ft, dr 4055 ft. Milham Corp.'s Bassett 1, elev 2270 ft, sd 2425 ft. Miller Bros. et al's Allison-Murke 1, dr 120 ft.

UPTON COUNTY—Atlantic Oil Prod. Co. et al's Elkins 1, sd hfw 3547 ft. Buell-Hagan's Robbins 1, rig. Mark Curtis et al's Giddings 2, top salt 1595 ft, dr 1610 ft. Marland & L. H. Wentz's Timms 1, dr 475 ft. F. P. Zoch et al's Union 1, dr 275 ft; Union-Murphy 1, lcn.

VAL VERDE COUNTY — Cal Vert Oil Corp.'s Bassett 1, dk.

WARD COUNTY—Estex Oil Co.'s Estes 1, elev 2508 ft, top salt 645 ft, top lime 2770 ft, dr 2875 ft. Denver Prod. & Ref. Co.'s Cherokee Fee 1, cem cas 1110 ft. Rector Oil Co. et al's State Fee 1, top salt 535 ft, dr 1760 ft. Selby O. & G. Co. et al's Dooley-Rogers 1, elev 2661 ft, top salt 3310 ft, sd 3525 ft.

WINKLER COUNTY—Amerada Pet. Corp.'s Walton 1, leve 2833 ft, making gas, dr by tools, td 2502 ft. V. T. Bolin & Co. et al's Brown 1, elev 2847 ft, tpo salt 1302 ft, dr 3155 ft. Danciger O. & R. Co. et al's Sealy 1, top salt 1085 ft, top lime 3115 ft, sulphur water 3295-3300 ft, dr 3365 ft. Flandell Oil Co.'s Carter 1, spd and sd. Gibson & Johnson et al's Leck-Daugherty 1, elev 2883 ft, top salt 1980 ft, top lime 2687 ft, shut in, td 3167 ft. Humble's Walton 1-B, elev 2844 ft, top salt 890 ft, top lime 2342 ft, dr 2585 ft. Texon's Walton 1, rig. Roxana & Llano Oil Co.'s Scarborough 3, elev 2939 ft, top salt 1280 ft, dr 2225 ft, Sid Richardson & White Eagle et al's Stockton Cattle Co. 1, spudding.

LEA COUNTY-NEW MEXICO — Marland Prod. Co. & The California Co.'s J. S. Eaves 1, Sec. 19-26s-37e, elev 2960 ft, top salt 1173 ft, top lime 2620 ft, mudded off 90 million ft gas 2927 ft; M. F. Sholes 1, Sec. 19-25s-37e, top salt 1045 ft, top lime 2584 ft, show sweet gas, dr 2710 ft; Siedeman 1, dry and abn 4125 ft; Roberts 1, dry and abn 3949 ft.

Coolidge Invites World To Tulsa Exposition

Tulsa.—Preparation for the fifth International Petroleum Exposition were speeded up when it was announced that President Coolidge had signed the Howard bill, authorizing the State Department to transmit invitations through diplomatic channels to all governments to participate in the events here October 20-29. It also became known the Department of Commerce will actively aid the exposition through its 52 foreign trade offices.

These official invitations are expected to increase the foreign attendance. Oil producing countries have been represented at former expositions and the sessions of the petroleum congress, but it is now believed there will be very much greater attendance. The trade representatives abroad will specially invite the oil men and transportation men of the increasing number of countries directly involved in the oil business. There will also be special invitations to the technical men everywhere.

These meetings have already been scheduled for the exposition period: National Association of State Geologists, October 25-27; and the Petroleum Division of the American Institute of Mining and Metallurgical Engineers, October 18-19. The meetings, supplementing the fact that the American Petroleum Institute and other organizations have formally endorsed the event are expected to heighten special and general interest.

Passenger associations have been asked to grant special rates and the Southwestern Association has already posted its rates. Work has been started on extensive improvement of the grounds, which were used last year for the first time.

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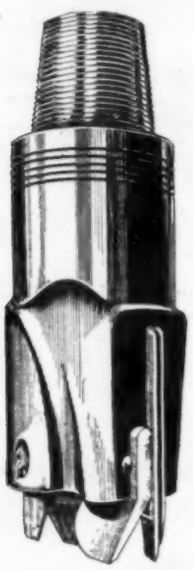

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Magnolia Pipe Line Runs in May Under Previous Month

DALLAS, TEXAS. — Magnolia Pipe Line Company's crude runs during May averaged 106,056 barrels daily or 11,464 barrels under the average maintained during the previous month. These runs represent crude produced and purchased by the Magnolia Petroleum Company in Oklahoma, Texas, Louisiana, Arkansas and Kansas, and do not include common carrier shipments, or the Hendrick field, West Texas district, crude run to local storage in connection with a storage deal with Cranfill & Reynolds.

The decline in crude runs sustained by Magnolia was largely confined to Oklahoma and Texas, and the total for May is the lowest level reached this year. Oklahoma continues to lead as the largest source of crude supply for Magnolia, having averaged 53,969 barrels daily during May as compared to an average of 58,452 barrels daily average for April. Magnolia's daily runs from fields in Texas during May averaged 43,376 barrels, or 3,844 barrels under the average maintained in April.

The Greater Seminole district accounted for the bulk of the loss in pipe line runs registered by Magnolia during May, but oil is going to storage in Oklahoma for lack of adequate trunk line outlet, having averaged 5,404 barrels daily. Magnolia stored oil in Oklahoma at the rate of 8,518 barrels daily in April, and at the rate of 12,103 barrels daily in March. This company's stock in Oklahoma-Kansas at the close of May amounted to 8,396,642 barrels daily.

Magnolia has had a surplus supply of crude for a number of months, and in addition to heavy runs to storage in Oklahoma, a large volume of oil is being placed into steel storage in the West Texas district. Heavy trunk line deliveries into the Beaumont terminals lately have about filled surplus storage facilities, and more steel tanks may be added at this point shortly. Little relief can be expected through tanker shipments of crude to Standard of New York's Atlantic Coast refineries, since the latter are carrying heavy stocks, with little idle tankage room. Magnolia shipped 684,279 barrels of crude during May to Atlantic Coast points in tankers. Water shipments of refined products coastwise and export during May reflected the summer demand with a total of 62,705,341 gallons, or an increase of 8,408,459 gallons over the previous month. Tanker shipments of fuel oil also increased during May, having totaled 10,376,473 gallons, as compared to only 2,913,590 gallons in April.

Total crude runs made by Magnolia Pipe Line Company, exclusive of common carrier business, from fields in Oklahoma, Texas, Louisiana, Arkansas and Kansas during April and May, 1928, follows:

Fields—	April Totals	May Totals
Wewoka-Earlsboro	834,695	727,821
Healdton	227,649	245,103
Seminole	263,088	239,216
Hewitt-Graham	162,328	186,439
Cushing	127,988	127,682
Yale	51,387	56,153
Duncan	41,961	44,365
Augusta (Kansas)	37,177	38,879
Walters-Beaver Creek	7,195	7,265
Burbank	84	138
Totals for Oklahoma and Kansas	1,753,552	1,673,061
Luling	349,458	369,262
Crane County	465,524	339,213
Panhandle District	115,989	114,824
Electra	100,216	102,900
Burkburnett	74,771	76,206
Winkler County	83,583	59,864
Lockhart-Lytton Springs	56,107	57,030
Mirando District	57,836	56,101
Archer County	33,808	33,021
Chalk-Iatan District	29,177	31,873
Mexia-Wortham	31,296	31,004
Desdemona-Comanche County	17,369	20,621
Corsicana-Powell	12,601	14,267
Ranger-Olden	10,250	10,845
Corsicana (heavy)	9,067	10,208
Stephens County	9,034	8,800
Petrolia-Clay County	3,518	3,376
Panola County	986	1,815
Spindle Top-Gulf Coast	1,289	1,721
Thrall-Williamson County	1,130	1,196
Glasscock-Howard County	719	514
Totals for Texas	1,463,728	1,344,661
Bull Bayou	42,585	44,635
Pine Island	38,307	41,497
Hackberry	37,754	28,905
Cotton Valley	27,303	25,628
Haynesville	2,186	3,035
Totals for Louisiana	148,135	143,700
Smackover	73,312	78,685
El Dorado	29,096	44,830
East El Dorado	3,237	2,790
Totals for Arkansas	105,645	126,305
Totals for five States	3,471,060	3,287,727

Dallas, Texas.—The Sun Oil Company was host to its employes in the Dallas headquarters and branch offices at a picnic given June 6 at a local park and swimming pool, with J. Edgar Pew, vice-president, as master of ceremonies. A bountiful supply of fried chicken with trimmings was provided by the company, and the athletic events included an indoor baseball game, and water contests. A bathing beauty revue was held to select Miss Sunoco.

CORRECTION NOTICE

In a recent issue of The Oil Weekly, the statement was made that the 1929 meeting of the American Association of Petroleum Geologists would be held in Fort Worh, Texas, March 19, 1929. This was an error and the correct date of the meeting is from March 21 to 23, inclusive.

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9000 Acre Plantation
One-Half Mineral Rights Reserved

In East Carroll Parish one of the most fertile, best improved plantations in Louisiana. Over 7000 acres protected by levee. 3500 open for cultivation. 2500 acres in cotton, balance in grains, meadows, and woods. Fully equipped, well drained, good buildings. Fine stock and implements. Gravel roads and plenty of labor. Best goose, duck and quail shooting and fishing in the country. 12 miles east of new 50,000,000 ft. gas well. An oil well now being drilled on this property. One-half mineral rights reserved. Big gas and oil possibilities. Offered on account of declining health of owner at $75,000.00 cash payment which barely covers personal property, balance easy terms. New law enacted by Congress appropriating many millions for river improvements will double value of these lands. Possession January 1st, 1929. For full particulars and financial statement write owner, F. D. Quinn, 306 U. & P. Bank Bldg., Memphis, Tenn.

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Gives counts and prices on over 8,000 different lines of business. No matter what your business, in this book you will find the number of your prospective customers listed.
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Largest City Directory Publishers in the World
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COMPLETIONS

(Continued from Page 66)

CALIFORNIA

BALDWIN HILLS-INGLEWOOD—		
Associated Oil Co., Vickers 10	400	2620
Standard Oil Co., I-56	800	2592
BELRIDGE—		
Berry Oil Co., No. 90, 30-28-21	100	680
LONG BEACH—		
Bellview Oil Co., No. 1	350	6262
Cannon Drilling Co., H-J 2	2600	6032
Calif. Pet. Corp., Davidson 9	1250	6465
Ellis 2	1100	7205
Flowerstate 2	100	6830
Foster 2	1000	5780
Cypress Pet. Co., Crest 3	800	6101
Dabney-Johnston Oil Corp., No. 5	2000	6170
General Pet. Corp., B. and D. 3	900	7046
Graham-Loftus Oil Co., Acme 2	1000	6045
Hancock Oil Co., No. 8	200	4850
Rio Grande Oil Co., Municipal A-3	800	5580
Joseph Seaple, Maltby 1	3800	6140
Shell Co., Cresson 7	2000	6738
Union Oil Co., L. B. C. 16	4200	6472
MIDWAY—		
Chanslor-Canfield Midway Oil Co., No. 29, 8-32-23	700	2929
RINCON—		
Chanslor-Canfield Midway Oil Co., Hobson B-2	600	2985
SEAL BEACH—		
Marland Oil Co., Bixby 3	1500	4775
VENTURA—		
Shell Co., Taylor 25	2750	7120

PERMIT

(Continued from Page 62)

CALIFORNIA

BELRIDGE—Berry Oil Co., No. 86, 30-28-21; No. 87, 30-28-21,

COALINGA—Zier Oil Co., No. N-9, 1-20-14.

KERN COUNTY—Superior Oil Co., A-1, 9-29-27. North American Royalty Co., No. 1, 8-28-25. California Pet. Corp., Pauly 1, 22-31-29.

LONG BEACH—Herndon Pet. Corp., Herndon 9, 29-4-12. Richfield Oil Co., Bernstein 3, 19-4-12. Hancock Oil Co., Signal 10, 29-4-12. Adams and Carrey, No. 1, 19-4-12. Dabney-Johnston Oil Corp., No. 14, 29-4-12. Union Oil Co., L. B. C. 21, 30-4-12; L. B. C. 22, 30-4-12. The Texas Co. Harlow 5-A, 19-4-12. Shell Co., Martin Comm. 5, 29-4-12. Thomas Kelly & Sons, Inc., Ella 3, 30-4-12. Richfield Oil Co., Denni 8, 29-4-12.

McKITTRICK—J. F. Harrison, No. 7-A, 20-30-22.

MIDWAY—Standard Oil Co., No. 84, 33-31-24. Honolulu Consolidated Oil Co., No. 23, 8-32-24.

MT. POSO—Modoc Pet. Corp., K. H. 3, 32-26-28.

RICHFIELD—Nugent Drilling Co., No. 3, 27-3-9.

RINCON—Elmer Co., Elmer 3, 6-3-24. General Pet. Corp., Oland 1, 7-3-24. Bankline Oil Co., No. 1, 7-3-24.

ROUND MOUNTAIN—Kern River Oilfields, Ltd., Kernco 2, 13-28-28.

SANTA FE SPRINGS—Union Oil Co., Bell 28, 6-3-11.

SAN MATEO COUNTY—Skyline Oil and Ref. Co., No. 1, 15-6-5.

VENTURA—Associated Oil Co., Lloyd 36, 22-3-23; Hartman 12, 22-3-23. Petroleum Securities Co., Orton 9, 28-3-23. Shell Co., Taylor 27, 28-3-23.

VENTURA COUNTY——Standard Oil Co., Vanoni 1, 11-2-22.

WHEELER RIDGE—Standard Oil Co., K-Co, 2. 28-11-20.

J. C. Axelson, president, and Clyde Ellwood, general sales director of the Axelson Machine Company, will be in the East for approximately three weeks, having departed from Los Angeles the first part of June. Both officials recently returned from an extended trip to Europe where arrangements were completed for the widening of distribution of Axelson products.

HEYDRICK'S NEW MAPS
WEST TEXAS

County Maps
Combination Maps

Descriptions and prices on application.

HEYDRICK MAPPING COMPANY
Wichita Falls, Texas.

C. W. WEBSTER

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⅞ *Mineral Deeds*
ROYALTIES

15 Years in Texas
Reference: Mercantile Agencies

Petroleum Building
FORT WORTH, TEXAS

PHILLIP MAVERICK
PETROLEUM GEOLOGIST
Rust Bldg.
SAN ANGELO, TEXAS

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Formerly Assistant Examiner United States Patent Office
Andrews, Streetman, Logue & Mobley
12th Floor Union N. Bk., Houston, Tex.

Maurice Hirsch & Ben J. Brown
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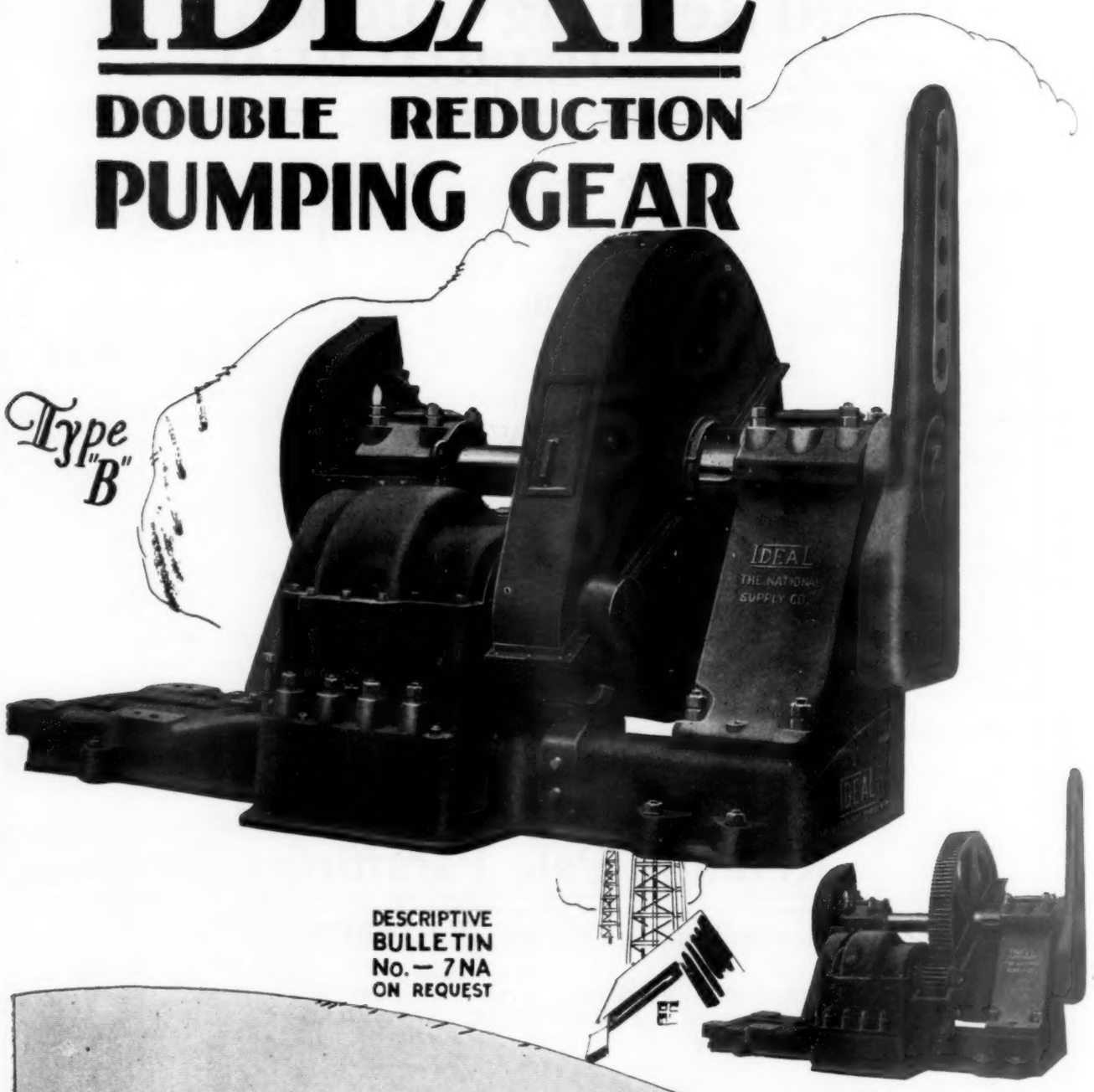
Charleston, S. C.
Savannah, Ga.
New Orleans (Gretna, La.)
Port Arthur, Texas
Galveston, Texas

IDEAL

DOUBLE REDUCTION PUMPING GEAR

Type "B"

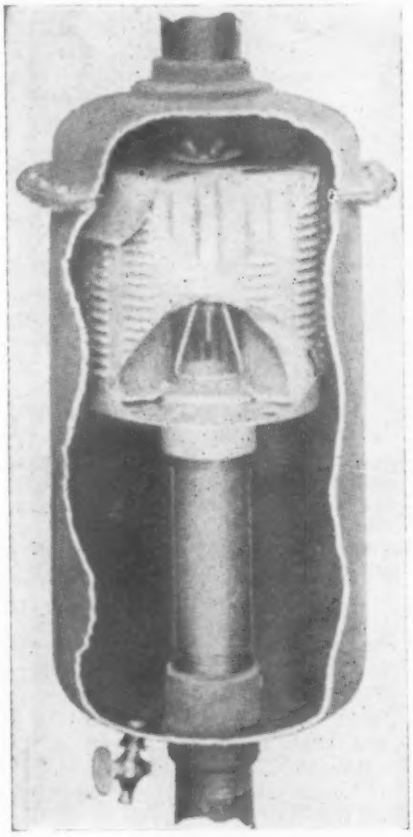


DESCRIPTIVE BULLETIN No.— 7NA ON REQUEST

THE NATIONAL SUPPLY COMPANIES

Say you saw it in The OIL WEEKLY

NEW EQUIPMENT, CATALOGS, BULLETINS, BOOKS



Sectional view, Model CP Pipe Line Filter

Pipe Line Air Filter

STAYNEW FILTER CORPORATION

A new filter for pipe lines has recently been placed on the market by the Staynew Filter Corporation, Rochester, New York. It is claimed that this filter will remove dust, water, oil, rust, scale and other foreign matter from air passing through the line.

This filter consists of an aluminum housing enclosed in a pressed steel housing, which manufacturers claim will withstand a working pressure of 125 pounds. The filter mounted inside consists of a felt filler medium formed in pockets over radial wire screen fins grouped around a central outlet. This permits mounting a relatively large area of felt in a compact space and allows the use of the entire available area of felt with a negligible restriction. The large capacity inserts are designed to pass 250 cubic feet of free air per minute and contain 20 square feet of felt within a volume slightly smaller than a cubic foot.

As air enters the top of these filters, it is thrown against the inner wall of steel housing by a shield over the top of filter. The downward velocity carries water, oil and most of the grit to the bottom of shell. All remaining water, oil, dust and grit is said to be caught by the filter. A drain cock is provided at the bottom to remove water, oil and sediment.

By closing a valve to shut off air going into the filter housing, and opening the drain cock, the air in the outlet pipes or hose is blown back through the filter proper, removing all material on the filter surface. Manufacturers claim that this filter can in this way be cleaned in about 10 minutes while in operation and that cleaning is necessary but twice a year under ordinary conditions.

More information will be mailed from the company, by request.

Improved Swing Joint

T. J. LANAGAN, EMPIRE COMPANIES

T. J. Lanagan, of the Empire Companies, Bartlesville, Oklahoma, has devised an improved swing joint and support which merited an award by the New Suggestions Committee of that organization.

The swing pipe is an extension of the pipelines connecting a tank, through the shell to the interior of the tank. It is hinged at the shell so that the free end may be raised or lowered for various purposes. Various methods are used to provide the hinge or joint, for the swing pipe and to support this joint. Some joints are made up with two ells and a nipple as in sketch A or may be a patented joint, such as in sketch B. It is difficult to support both of these pipes so that they will not turn axially with the tank nipple and thus throw the swing pipe out of alignment with the sheaves for raising and lowering. It also is difficult to support these two types of joints so as to prevent the weight of the pipe itself from resting on the tank nipple.

Mr. Lanagan will provide further information to any one interested.

Seal Ring for Shafts

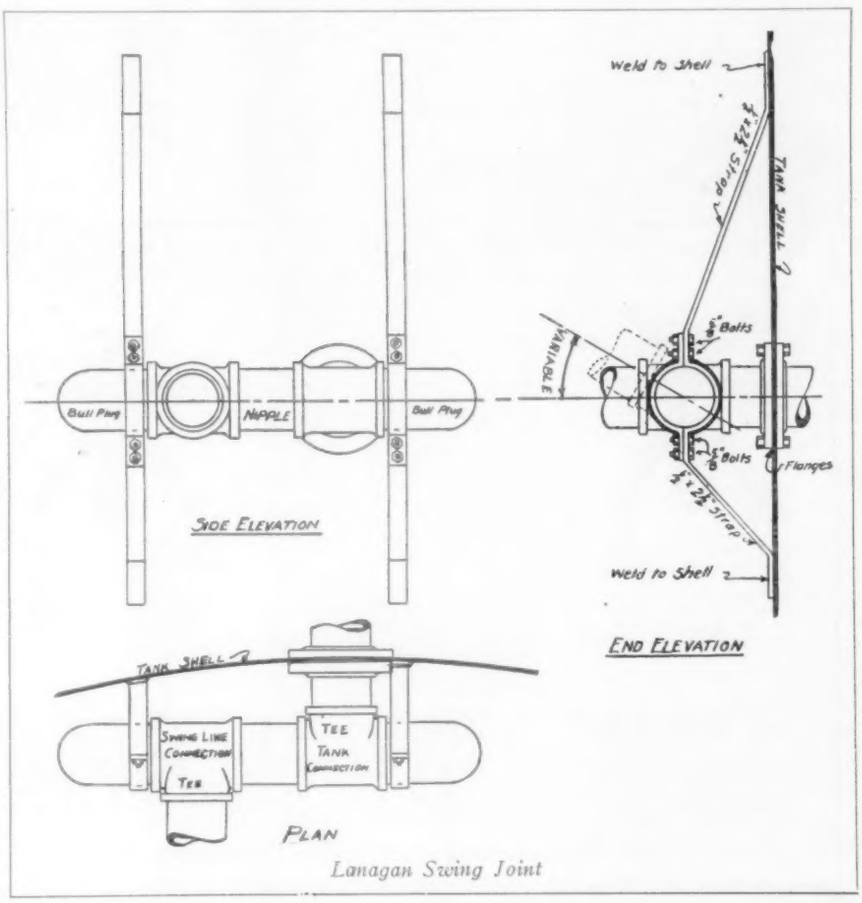
COOKE SEAL RING

Cooke Seal Ring, 14-30 N. Green Street, Chicago, announces the Cooke Seal Ring, for rotating shafts.

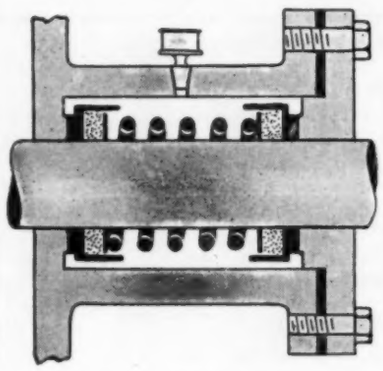
The device was developed to meet the need for an effectual seal around a rotating shaft.

A helical spring compresses against a rubber packing in the housings of the seal rings, binding the entire assembly frictionally tight on and sealing the shaft, thus causing the assembly to rotate with the shaft and form a ground joint with the gland and back of the stuffing box.

The follower rings also enter the



Lanagan Swing Joint



Style No. 3 Double Seal Ring

housing of the seal ring between the rubbers and the spring and thus protect the former from the action of oil or any other substance.

The entire assembly revolves with the shaft on a three-sixteenths-inch ground face on the stuffing box gland and is lubricated and sealed with oil from the stuffing box now used as an oil reservoir.

Three styles of the ring are made: Style No. 1 for a single seal where there is a shoulder on the shaft; style No. 2 for a single seal where there is no shoulder on the shaft, and style No. 3 for a double seal.

The ring is installed over the end of the shaft and can be used only on rotating shafts.

Manufacturers of the ring will furnish further information, by request.

R. T. Todd of the Dunn Manufacturing Company at Tulsa, will leave the middle of the month for an extended tour of the Rocky Mountain oil fields.

The Los Angeles sales offices of Hill, Hubbell & Company were moved on June 1 from 331 West 11th Street, to the Petroleum Securities Building, 714 West 10th Street. This company maintains sales offices and warehouses in principal Pacific Coast cities. They are located at Los Angeles, San Francisco, Oakland, Portland and Seattle. The Mid-Continental offices and factories are located at Tulsa, Oklahoma, and district offices and warehouses are also maintained at Houston, Texas, Baltimore and New York.

Frederick G. Clapp was recently in Msejid-i-Sulieman, the largest field in Persia, in the newly discovered Haftkel field in the country, and in the Naft-khaneh field, situated on the boundary between Persia and Iraq. He also visited Kerkuk and the Babagurgur well in Iraq.

J. C. Ballagh, secretary of Patterson-Ballagh Corporation of Los Angeles, is attending sessions of the A. P. I. Committee at Colorado Springs this week. Mr. Ballagh will visit several Mid-Continent fields en route to Los Angeles from the sessions.

Warren A. Tipton, 414 Commerce Street, Dallas, Texas, has been appointed district manager of the MacGregor Rotary Valve Company of St. Louis, Missouri. Mr. Tipton will direct distribution of this type of lubricated valve in North and West Texas.

Earl A. Trager, at one time head of the sub-surface geology department for Marland Oil Company of Mexico and more recently geologist with Earl Oliver & Company, Ponca City, Oklahoma, has been made chief geologist of Skelly Oil Company, effective June 1.

Supply Companies Merge In New Corporation

Pittsburgh, Pa.—Frick-Reid Supply Corporation, with general offices in Pittsburgh, Pennsylvania, and Tulsa, Oklahoma, has been formed through the merger of properties and assets of The Frick-Reid Supply Company and Frick & Lindsay Company. Jones and Laughlin Steel Corporation has acquired a majority of the common stock of the new corporation.

Frick-Reid Supply Corporation is being incorporated under the laws of Pennsylvania and will conduct a general oil field and industrial business with 48 branch stores and warehouses located in Pennsylvania, Ohio, West Virginia, Kentucky, Missouri, Kansas, Oklahoma, Texas, Louisiana, Arkansas and Wyoming. The new corporation will be the sole representative in the oil country, of a number of leading manufacturers of equipment as in the past.

Both Frick & Lindsay Company and Frick-Reid Supply Company have been under the same management for many years. Directors of the Frick-Reid Supply Corporation are: W. E. Frick, of Sewickley, Pennsylvania; W. O. Platt and John Reid of Oil City, Pennsylvania; T. M. Girdler, S. E. Hackett and William M. Patterson, of Pittsburgh; R. T. Frick, of Sewickley, and J. E. Swindler and J. L. Shakely of Tulsa.

Officers of the new corporation are: W. E. Frick, president; W. O. Platt, J. E. Swindler and J. E. Shakely, vice-presidents; William M. Patterson, secretary, and R. T. Frick, treasurer.

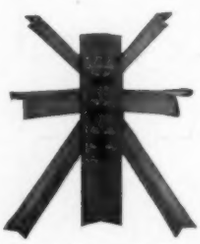
McCallum Exploration Company, with headquarters in Washington, D. C., has opened offices in Houston, at 1211 Esperson Building. The Houston office is under the direction of R. B. Paxson, former geologist in the Gulf Coast and East Texas territory for the Atlantic Oil Producing Company.

The company has trained operating crews available for geophysical exploration work.

Terrell T. McCarty is in Colorado Springs this week attending the sessions of the A. P. I. committees. Mr. McCarty has specialized in the handling of advertising appropriations of leading oil field equipment manufacturers for the past 15 years, maintaining a large organization in Los Angeles.

E. Clem Wilson, president of Wilson & Willard Manufacturing Company and Wilson Oil Tools Corporation, has been elected a member of the board of directors of the Merchants' and Manufacturers' Association of Los Angeles. He was a director of the association a number of years ago and has been one of the staunchest supporters of the organization for more than 20 years.

Why Experiment? O'Brien Derricks will drill your wells and pull your casing



The inside construction of a joint in an O'Brien Derrick. The inside and outside reinforcing plates form a slot to receive the next higher leg.

Outside joint of an O'Brien Derrick. The slot formed by the two plates holds the legs in place, while bolting up, thus making fast erection easy.

O'BRIEN DERRICKS *Substantial and Safe in Any Field*

Scientifically designed to meet the tremendous stresses and strains in drilling, there is no uncertainty about what O'Brien Derricks can do. Two dozen deep wells with a single O'Brien is not unusual service for these rigs. They are as permanent as it is possible to make them. Rugged, fireproof, windproof, easily erected and dismantled.

An O'Brien Derrick isn't cheap—but it is THE economical derrick from the time you buy it until the last well it's used on.

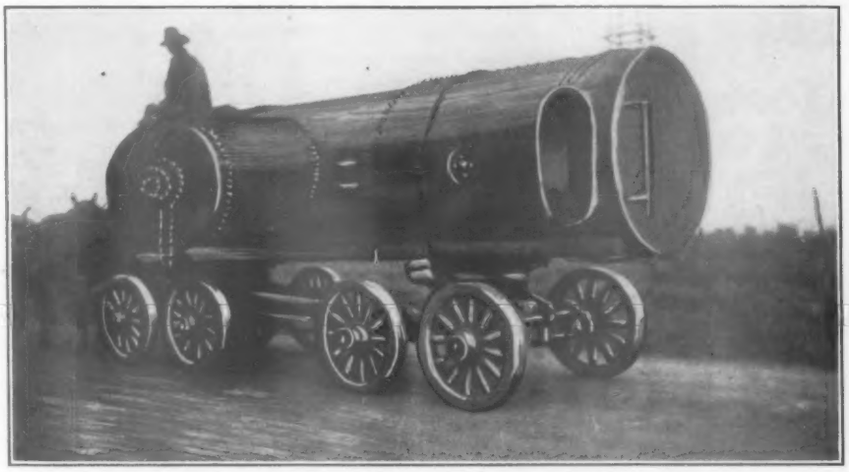
O'Brien Steel Construction Company, Inc., Washington, Penna.

Western Representative:
RIG EQUIPMENT COMPANY, 1524 So. St. Louis St., Tulsa, Okla.

For Heavy Duty Hauling in the Oil Fields Use the MARTIN EIGHT-WHEEL WAGON

Made of Selected Material.

The Best Braced Wagon on the Market.



This Type Wagon Especially Designed for Oil Field and Pipe Line Work.

A Neat Load on a Martin Eight-Wheel Wagon in Seminole, Oklahoma, Field.

17 Years Experience in Manufacturing Hauling Equipment.

Write for Catalog and Price Lists.

The Martin Wagon Company

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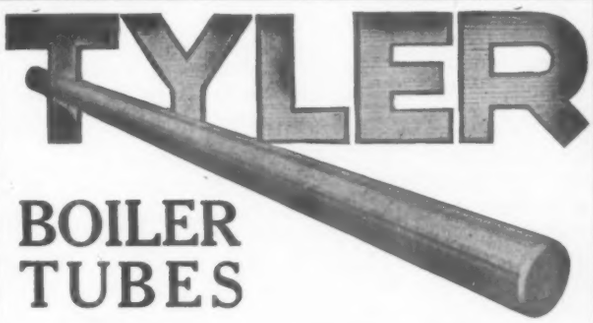

BOILER TUBES

Resist corrosion—

Whether it is charcoal iron tubes for bad water conditions or lap-welded steel tubes for good water conditions—Tyler Boiler Tubes will give *lasting* satisfaction.

All tubes are made to A.S.M.E. Code Requirements.

Request full details

THE TYLER TUBE & PIPE CO.
WASHINGTON, PA.

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Harrisburg Pipe and Pipe Bending Co., Houston, Texas
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A. M. Castle & Company, Chicago; Seattle, Washington; San Francisco, Calif.; Los Angeles, Calif.
The Bourne-Fuller Company, Cleveland, Ohio.
Lukens Steel Company, New Orleans, La.

A Cyclone representative is the man to consult for information on any fencing problem in the oil industry. He comes equipped with long experience and a fund of knowledge that will enable him to grasp your fence problems quickly and advise you intelligently. Without obligation, phone, wire or write nearest offices.

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TEXAS CYCLONE FENCE COMPANY

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Cyclone Fence

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GRAY

GRAY

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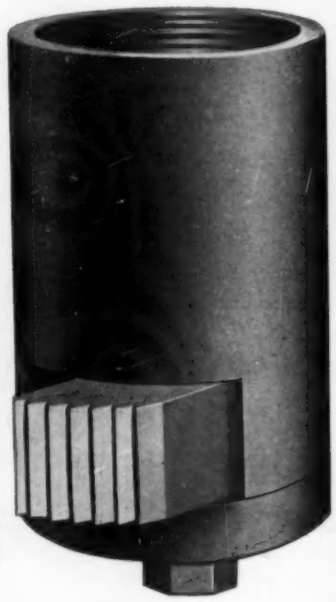
Back Up Tool



A strong, practical, economical tool for backing up string of casing while top joint is unscrewed for spacing and nippling up. This tool is so designed that releasing of it is positive. Loosening of joints in a set string or setting with last joint only partly made up . . . are eliminated when this tool is used.

STRONG

Few Parts

Its simplicity and small number of parts added to its strength and efficiency makes it free from complications in operation and enables it BEING SOLD TO THE TRADE SO ECONOMICALLY . . . . that each lease can be properly equipped . . . and nippling-up troubles eliminated.

WRITE
for information
TODAY

GRAY
TOOL COMPANY
HOUSTON, TEXAS.

SQUEAKS FROM THE BULL WHEEL

The editor of *The* OIL WEEKLY is in receipt of a letter from "Rocky De John," well known wheelbarrow pusher of Fort Worth, who compliments us on the "Sport Page" in the June 1 OIL WEEKLY.

He says, "Anent (that is a darned good word) your new 'Sport Column' —Houston is a real oil town—Rio Bravo, Kirby, Humble, Gulf, Sinclair and many others—why not organize a twilight league—say Hop Skotch in the summer and Tiddley Winks or Ping Pong for the winter season? Perhaps the field of operations could be enlarged to statewide proportions—think of the thrills the boys on the lazy bench would get each week in contemplation of the standing of their 'Babe Ruths' as printed in the weekly.

"May I suggest that you present the proposition and see what the boys think of the idea? Personally I prefer Ping Pong.

"Very respectfully,
Rocky De John."

Upon receipt of this letter the editor immediately went into deep conference with himself trying to decide whether or not he was being kidded, or Houston. He finally concluded that Rocky didn't appreciate the fact that the wildcat tournament in Houston two or three weeks ago was the first occasion for Houston oil golfers ever to win anything, anywhere, anytime. He also evidently didn't understand that all of the golfers whose pictures were printed on the sport page paid $500 each for the privilege, special discounts being allowed where the same man's picture occurred more than one time.

The suggestion for a Ping Pong league is to be acted upon favorably and we in turn recommend the establishment of a Ping Pong committee for Fort Worth with Rocky as chairman.

Our eminent Tiddley Winks expert and authority, Mr. Paul Peebles, who has returned from South America, will undertake the organization of a tiddley winks leage in Houston shortly and if Rocky will come out from under cover long enough to give us his address, (we don't believe that he stopped at any of the hotels whose letterheads he has been using) Paul will be glad to consult him for further advice.

Beggar: "Kind lady, I was not always like this."

Lady: "No. Last week it was your other arm that was missing.—London Opinion.

"Ought I to marry a girl who is my inferior mentally?"

"If possible, yes."

He had been rescued from drowning only by the most heroic work. He was unconscious but finally revived sufficiently to recognize those around him.

"How does it seem to be so near dead?" a friend asked.

"Oh, I knew I wasn't dead," replied the rescued one.

"How could you tell?"

"I was hungry and my feet were cold."

"From which you inferred what?"

"Well, I knew that if I was in Heaven I wouldn't be hungry and if I was in Hell my feet wouldn't be cold."

"I always encourage my husband to recline in an easy chair and put his feet on top of the radiator."

"Why so?"

"When he goes to bed there is usually about $4.00 in small change in the chair."—Atlantic City Press.

"Your Majesty, there's a shiek at the gates with a saxophone."

The Devil: "Throw the saxophone away and let him in."

Patient: "The size of your bill makes my blood boil."

Doctor: "Then that will be twenty-five dollars more for sterilizing your system."

"Is she making a good wife?"

"Well, not exactly; but she's making him a good husband."

An English tourist was sightseeing in Ireland and the guide had pointed out the Devil's Gap, the Devil's Peak, and the Devil's Leap to him.

"Pat," he said, "the devil seems to have a great deal of property in this district!"

"He has, sir," replied the guide, "but, sure, he's like all the landlords—he lives in England!"

One evening just before dinner a wife, who had been playing bridge all the afternoon, came in to find her husband and a strange man (afterward ascertained to be a lawyer) engaged in some mysterious business over the library table, upon which were spread several sheets of paper.

"What are you going to do with all that paper, Henry?" demanded the wife.

"I am making a wish," meekly responded the husband.

"A wish?"

"Yes, my dear, in your presence I shall not presume to call it a will."

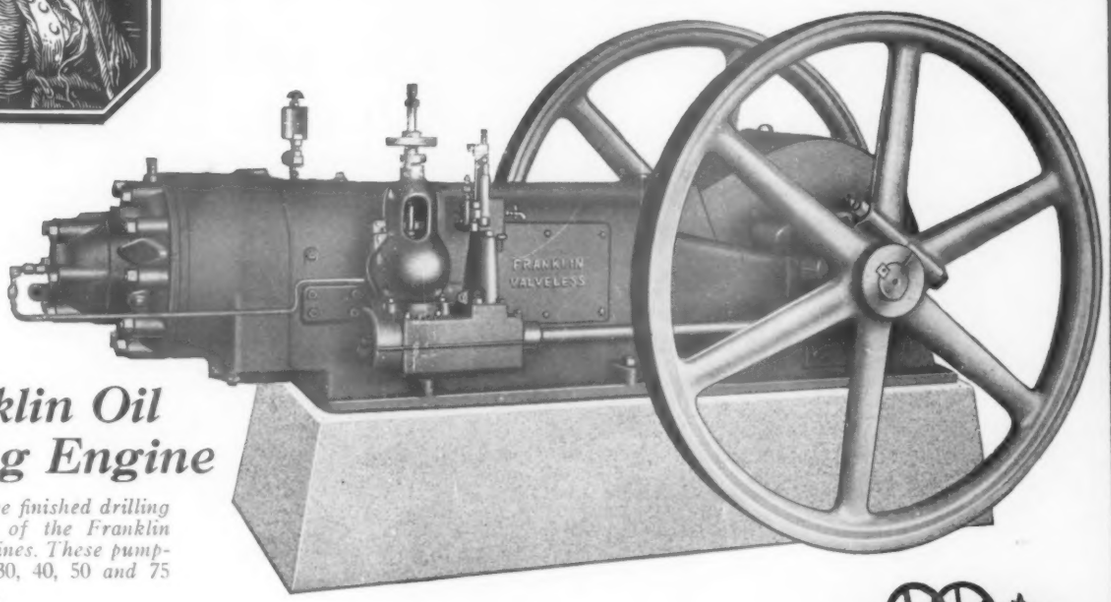
Wife at Head of Stairs—Is that you, John?

Heavy Voice from Dark—Who was you expectin'?

FRANKLIN VALVELESS
OIL AND GAS ENGINES

TWO FRANKLINS

Both Strong for Saving



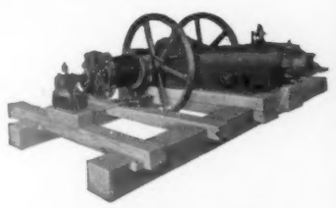
Franklin Oil Pumping Engine

After you have finished drilling move in one of the Franklin Pumping Engines. These pumpers come in 30, 40, 50 and 75 Horse Power.

EVER since Benjamin Franklin, himself, was alive the name Franklin has been associated with saving. The great philosopher-statesman in his time preached the value of saving pennies and dollars. A Franklin engine in this day and age practices the saving of money by reducing fuel and repair bills.

First consider the saving of fuel. Scores of drillers tell us that the saving in this item alone would justify the installation of a Franklin. As for lubrication, one operator comments: "My lubricating oil for the four Franklin Gas Pumping Engines cost me $42.00 for the year, which is an average of $10.50 per engine. This seems unbelievable, as these engines were pumping 24 hours per day."

But there are other savings not to be overlooked. You save valve grinding, for you must remember the Franklin is *valveless*. You save an appreciable amount for water. And finally, credit yourself with a tidy *repair* saving as hundreds of others have done.



Franklin Oil Drilling Engine

The Franklin Oil Drilling Engine is a single cylinder, three port, two cycle engine. This is Type AO for Mid-Continent or Western Cable Tool Drilling. Price $3700. Sizes for Eastern Service $2600.00 and $3350.00. Prices F.O.B. Factory. Complete with self-oiling reversible drilling clutch, circulating pump and fuel tank.

FRANKLIN VALVELESS ENGINE CO.
FRANKLIN, PENNA.

Distributed by

OIL WELL SUPPLY CO.

Branch Stores in All Oil Fields

90% CORE RECOVERY WITH A HUGHES CORE BIT

The picture below is that of cores taken with a Hughes Roller Core Bit on Well No. 1, V. T. Bolin-Brown, a wildcat located 4 miles east of the famous Winkler Pool.

More than 360 feet of uncontaminated core was successfully taken between 2515 feet and 2915 feet depth. With the exception of 16 feet the formations were anhydrite, broken lime and hard lime. Only 12 cutter heads were used.

The Hughes Roller Core Bit is designed for maximum drilling speed, safety and the recovery of uncontaminated cores. The cutters roll in a true circle with relation to the center of the core.

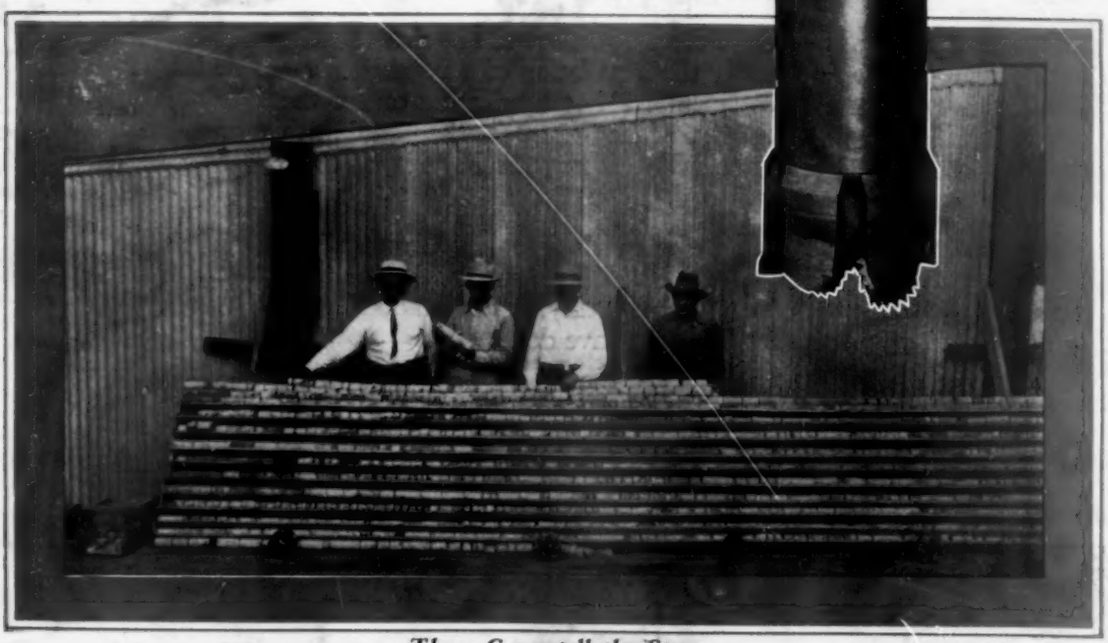
HUGHES TOOL COMPANY

Service Plants: Los Angeles, Calif. Oklahoma City, Okla.

Main Office and Plant. HOUSTON, TEXAS

Export Office: Woolworth Bldg., New York City

(By Walker)



These Cores tell the Story

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